



ACARI MYRIOPODA ET SCORPIONES
HUCUSQUE IN ITALIA REPERTA

ORDO
CRYPTOSTIGMATA
(SARCOPTIDAE)

AUCTORE
ANTONIO BERLESE

(CUM TABULIS LITHOGRAPHICIS CCXLI)

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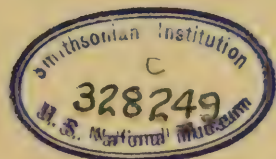
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CRYPTOSTIGMATA
(SARCOPTIDAE)

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ANTONIO BERLESE, 1863-1927.

(CUM TABULIS LITHOGRAPHICIS CCXLI)



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SARCOPTIDARUM NOSTRATUM ET EXOTICARUM
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ORDO
CRYPTOSTIGMATA
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I.



## Ordo CRYPTOSTIGMATA

(Sarcoptidae)

( $\alpha$  = sine; στήλη = foramen tracheae)

*Acarides* ou *Mites* (ex p.) Latreille, Genera Crustac. et Insect., Paris 1806.

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*Sarcoptidae*, (ex p.) Sundevall, Conspectus Arachnidarum, Lund. 1833.

*Acaridae*, Dugés, Recherches sur l'ordre des Acar. (Ann. Sc. nat. Zool. II Ser. tom I, II) 1834.

*Sarcoptidae*, (ex p.) Koch, Uibersicht des Arachnidensystems, Nuremberg 1842.

*Sarcoptidae*, Fürstemberg, Die Krätzmilben der Menschen und Thiere, 1861.

*Sarcoptidae*, Mègnin, Mém. sur l'organisation et la distribution Zoologique des Gamasides, 1876.

*Acaridae*, Murray, Economic Entomology, Aptera, London, 1877.

*Atracheata*, Kramer, Grundzüge zur Systematik der Milben, 1877.

*Atracheata*, Michael, British Oribatidae, 1883.

*Sarcoptidae*, Berlese, Acarorum systematis specimen, 1885.

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*Astigmata* (Sarcoptina), Canestrini, Abbozzo di sistema acarologico, Venezia 1891.

*Astigmata*, Trouessart, Considérat. générales sur la Classific. des Acariens, Paris 1892.

*Acaroidea stigmatibus et tracheis evanidis. Rostrum anticum, rarius subinferum, plerumque mediocre, palpis minutis, vix conspicuis, plerumque triarticulatis, cylindricis, inermibus. Mandibulae haud retractiles, tantum lateraliter mobiles, plerumque cheligerae, parvulae.*

*Pedes saepius quinquearticulati. Ambulacra unco membranula saepius circumdato, vel unco nullo et tum membranula foliiformis vel infundibuliformis ad adhesionem apta est.*

*Oculi nulli. Derma plerumque molle, vel scutis aliquot dorsualibus durioribus auctum, in ventre epimeris linearibus, dure chitineis tantum praeditum.*

*Circa genitalia saepius utrinque disculi duo genitales stant, in mari autem plerumque etiam duo maiores (copulativi) in extremo abdomine ad ventrem.*

*Color albidus hyalinus, rarius infuscatus. Larvae hexapodae, plerumque adulto subsimiles. Adest etiam larva octopoda, ab adultis valde dissimilis, (hypopus), ore destituta, ad diffundendam speciem tantum occurrens. Ovipari vel ovovivipari.*

*Liberi vel aliorum animalium hospites vel parasitae.*

**Corpus** plerumque ovatum, plus minusve rotundatum, aliquando perlongum. In nonnullis familiis, praecipue in sarcoptidis avicolis, corpus maris postice bifidum vel plus minusve profunde incisum aut bilobum est. Abdomen pluries ab antico distinguitur, propter sulcum transversum in dorso et in ventre conspicuum. Numquam plicae aliae adsunt transversae quae ceterum abdomen quasi in segmenta dividant.

*Epiderma tenuissime striatum est, rarissime totum punctulatum aut granosum (videas Glyciphagus plumifer et affines), in scutulis tamen densius adparet et punctis impressum. In plurimis enim speciebus, praecipue in liberis, derma permolle est, hyalinum striatumque, in dorso toto et in ventre, exceptis epimeris, sed in speciebus avicolis plerumque scuta adsunt maiora vel minora, dorsum plus*



minusve obtegentia, et punctulata, vel aliter impressa, nec non colore obscuriori insignita. Color autem scutulorum horum fixus est neque evanescit, quia epiderma idem est tinctum, nec hypoderma, ut in *Prostigmatis*, qua re color per terreum, in testaceum et badium vertit.

Spinis autem (*Sarcoptidae*) vel setulis simplicibus aut plumosis, aut foliolis hyalinis (*Freyana*, *Proctophyllodes*, *Pterolichus vexillarius*, *Oustaletia Pegasus*, *Glycyphagus palmifer*, *pterophorus*, *Histiostoma phyllotrichum*) est vestitum, et setulae adsunt saepius longiores, rectae, in corporis dorso et ad latera.

**Anticum** conicum est, plus minusve anterius subacutum. In speciebus avicolis (*Analgesidae*), scuto plerumque unico, trigono in dorso protegitur, vel scutulo postice bifido. *Abdomen* autem in iisdem speciebus vel nudum est etiam in dorso, vel scuto unico subrectangulo lato augitur, vel scutulis tribus aut quinque, ex quibus medius latior.

In nonnullis *Analgesidis*, abdomen postice bicornis est, et in tuberculis duobus (in foeminis) dure chitineis et longe spinigeris desinit.

Ceterum, abdominis fabrica, praecipue in *Analgesidis*, valde diverse in diversis speciebus conformata est, ita ut corporis pars ista ad dignoscenda species et genera, optime concurrat, et hoc praecipue in maribus.

Ad ventrem, scuta chitinea semper desunt, et pedum musculi motores lineis chitineis durioribus sunt insiti, ex quibus epimeris, antica (*epimera antica*) quasi lineae e sinu inter rostrum et coxas primi paris in medio antico procedunt, vel interse se distincta (*epimera discreta*), vel interse se coniuncta (*epimera concreta*) figuram chitineam litteram Y simulantem constituentia. Epimera demum secundi paris linearia sunt et e sinu inter coxas primi secundique paris exorta in medio pectore procedunt, raro apice suo cum apice epimerorum anticorum coniuncta.

Ceterorum pedum epimera, lineas sistunt chitineas e coxa superna pedum tertii et quarti paris, breviter in medio abdomine directa.

**Genitalia** in utroque sexu ventralia sunt, plerumque inter posticos pedes manifesta. In mari, adest saepius penis exertus chitineus, subuliformis vel runcatus, mediocris vel

longior, in nonnullis speciebus (*Analgesae*) fere totius abdominis longitudinem aequans, flagelliformis et ultra postremum abdomen productus (*Proctophyllodes glandarinus*) etc. Circa organum hoc, in *Tyroglyphidis*, *Canestrinidis*, *Listrophoridis*, adsunt utrinque duae papillae vel disculi genitales breviter claviformes et minuti, quos frustra in *Analgesidis* queras.

Isti sunt *disculi genitales* quos videbis etiam in foeminis supradictarum familiarum, circa vulvam.

Sed, in plurimis generibus, paucis exceptis, mas etiam *disculis copulationis* maioribus gaudet, vel omnino planis, rotundis, vel longe clavatis (*Proctophyllodes Ampelidis*, *Chortoglyphus* etc.) apice plano, rotundato.

In *Histiogaster carpio*, abdomen producitur in appendicem quamdam carnosam, late clavatam, cuius ad apicem disculi adhesionis quatuor sunt, et foliolis chitineis supernis quatuor aucti.

In genere *Histiostoma* mares foeminaeque disculis genitalibus varie in ventre dispositis, quatuor numero, auguntur.

In foeminis vulva plerumque in medio pectore aperitur, et longitudinalis rima est, labiis plicatulis, aliquando circine epivulvari chitineo, sive *epigynio*, semicirculari (*Analgesidae*) superne ornata.

In *Tyroglyphidis*, *Canestrinidis* et *Listrophoridis* vulva disculis quatuor genitalibus circumdatur, plus minusve claviformibus. Disculi isti numquam in ceteris familiis conspiciuntur.

Foeminae generum *Proroptes*, *Otodectes*, *Chorioptes* inter *Sarcoptina*, et generis *Tyroglyphus* etc. in aliis familis, in postico dorso vel ad marginem posticum abdominis etiam disculis vel tuberculis quibusdam gaudent, in copula cum disculis copulationis maris coniuncti, qui *tuberculi copulationis* dicuntur.

**Rostrum** fere in omnibus speciebus minusculum, semper anticum, sive in summo cephalothorace insitum. Tantum in generibus *Falciger* et *Bdellorhynchus*, inter *Analgesidas*, rostrum marium validum et longum est.

Itaque rostrum semper bene manifestum est, animal pronum conspiciendo et conice antarius, porrectum.

*Mandibulae* curtulae, crassiusculae, apice curte cheligerae

(exceptis paucis generibus, sive *Histiostoma*, *Linocoptes* etc.), chela digitis breviter trigonis, interne denticulatis, ex quibus inferior mobilis, alter fixus. Mandibulae ergo tantum lateraliter mobiles sunt, basi articulatae, numquam protractiles retractilesve.

*Palpi* minores vel minimi sunt, plerumque dubie triarticulati, cylindrici, ad latera rostri vix manifesti, rostro eodem stricte adpropinquati, apice obtusi.

*Maxillae* laminares, subrectangulae, cum labio inferiori late rectangulo, unicum frustulum (*Hypostoma*) sistentes.

In unico genere *Cytodites* rostrum in haustellum est deformatum.

*Pedes* mediocres, semper ambulatorii vel ad adhesionem deformati (*Listrophoridae*), vel in speciebus plurimis, inter Analgesidas, in mari tertium vel quartum par, vel ambo paria ista ceteris valde maiora et robustiora sunt, aliquando etiam ambulacris destituta.

In speciebus nonnullis *Psoroptidarum*, et *Sarcoptidarum* tertium et quartum pedum par, vel tantum tertium par, ambulacris destituuntur et setis longis simpliciter terminantur. Ceterum pedes non plus quam quinque articulis constituuntur, intersese subaequalibus, secundo tamen ceteris plerumque sat maius, tarsoque subconico, ambulacrum gerenti.

*Ambulacra*, vel ungue tantum constituta, vel unco aut uncis duobus, variae magnitudinis, saepius lata membranula hyalina circumdatis, vel uncis nullis, membranulaque maxima, lata, foliiformi constituta.

**Larvae**, hexapodae sunt, adulto similiores.

**Nymphae** octopodae, adultis suis simillimae.

In hac familia adsunt tamen *nymphae hypopiales*, sive formae quaedam, adultis suis valde dissimiles, e nympha octopoda per metamorphosim exortae, octopodae, ore destitutae, disculis adhesionis ventralibus plurimis auctae, demum rursus in nympham octopodam per metamorphosim se mutaturae (1), quae ad diffundendam speciem, aliis animalibus arcte adhaerendo, non parasitae sed viatores, fere in omnibus familiis occurrunt, hucusque tamen tantum in *Tyroglyphidis* et *Analgesidis* inventae. Histae *Hypopus* dicuntur.

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(1) Hoc Megninii fide.



Hypopi *Tyroglyphidarum* super *Vertebrata* et *Arthropoda* inveniuntur; hypopi *Analgesidarum* autem super *Aves* in avium earundem dermate infossi (*Hypodectes*).

**Polymorphismus** adest in maribus nonnullorum generum in familia *Analgesidarum* (*Analges*, *Bdellorhynchus* etc.) quia mares generum horum a foeminis suis valde diversi sunt et inter sese etiam discrepantes.

**Dymorphismus** sexualis perobvius et manifestissimus, praecipue in plurimis generibus familiarum *Analgesidarum*, *Listrophoridarum* etc., et mares pedibus diverse evolutis, tum abnormibus a foemina diversi, nec non corporis totius fabrica.

Mirum est etiam quod foeminae *Analgesidarum* aliorumque, adhuc nymphae cum mari suo in coitu copulentur, post coitum in adultum vulvigerum mutantur, corporis fabrica a nympa octopoda plerumque satis diversum (*Proctophyllodes*).

**Ovipari** rarius vivipari sunt acari huius familiae, sed etiam ovovivipari. *Tyroglyphum mycophagum* aliquando pupiparum esse dignovit Cl. Moniez, quia nymphas hypopigeras in corpore suo saepe foeminae adultae huius speciei, adhuc viventes occludant.

**Metamorphoses** in acaris istis sunt:

De *larva* hexapoda, in nympham octopodam (disculis genitalibus duobus tantum aucta in *Tyroglyph.* secundum Mègnin, Kramer etc.) *Nympha* (octopoda) prima, vel in marem adultum directe mutatur, vel, si seriei foemineae pertineat, in nympham octopodam secundam (in *Tyroglyph.* disculis genitalibus quatuor peditam), quae foemina *pubera* appellatur, et cum mari suo in coitum convenit, post quem mutatur tandem in *Foeminam* (adultam) vulva auctam.

Nympha octopoda prima in *Tyrogl.* et *Analges.* in *hypopum* mutari potest; qui demum directe in adultum, secundum Moniez et Michael, transformatur (1).

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(1) Circa formam quae ex *hypopo* procedit, variant auctorum opiniones, quod Megninius adfirmet e nympa quadridiscalata hypopum oriri, ex quo autem nympa tandem bidiscalata procedat, regressu ergo manifesto; auctores alii supradicti, egoque simul, ex *hypopo* adultum procedere putamus, hac re, *hypopus* e nympa prima exhortus, nymphae secundae foeminae correspondit, regressu ergo in evolutione nullo.



**Habitant** huius subordinis acari, vel liberi in putrescentibus, aut in detritis organicis, aut super cibaria, et isti *Tyroglyphidae* sunt; aut super mammalia scabiem non inducentes sed inter pilos absconditi, tantum dermatis excretionibus victitantes, et familiam *Listrophoridarum* sistunt; aut super *Aves* non parasi sed plumicolae, inter *Analgesidas* ditissimam specierum generumque familiam adscribendi, vel in dermate eodem *Mammalium Aviumque* scabiem inducentes et tunc in familia *Sarcoptidarum* vel *Epidermoptidarum* includendi.

### Explicatio tabularum.

#### Tab. I.

Fig. 1. *Glycyphagus plumifer* pronus derma totum granosum ostendens et pilos plumiformes (*a*) corporis.

Fig. 2. *Pterolichus* quidam mas pronus, scuta dorsualia ostendens.

*a* cephalothorax; *b* abdomen; *c* scutum dorsuale cephalothoracis; *d* idem abdominis.

Fig. 3. *Onstaletia pegasus*. Trouess. appendices laminaceas corpus adornantes ostendens.

Fig. 4. *Tyroglyphus* quidam foemina supina.

*a* epimera primi paris; *b* eadem tertii paris; *c* foramen genitale; *d* disculi genitales; *e* anus.

Fig. 5. *Tyroglyphus* quidam mas supinus.

Litterae ut in fig. praeced. sed *c* est penis.

#### Tab. II.

Fig. 1. Sectio media longitudinalis rostri *Tyroglyphi mycophagi*.

*A* anticum; *a* epistoma; *b* seta verticis; *c* vertex; *d* mandibula; *e* epipharinx; *f* mentum; *g* maxilla; *h* oesophagus; *i* cerebrum.

Fig. 2. Rostrum *Pteronyssi fusc*i prozum;

Litterae ut in fig. praecedenti sed *m* est palpus.

Fig. 3. Hypostoma *Glycyphagi peregrinantis*, *a* mentum; *b* maxillae; *c* maxillarum mala interior; *d* epipharinx; *e* palpus.

Fig. 4. Mandibula *Glycyphagi ornati*.

Fig. 5. *Histiostomatis rostro serrati*.

Fig. 6. Tarsi apex et ambulacrum *Glycyphagi domestici*; *a* membrana; *b* unguis.

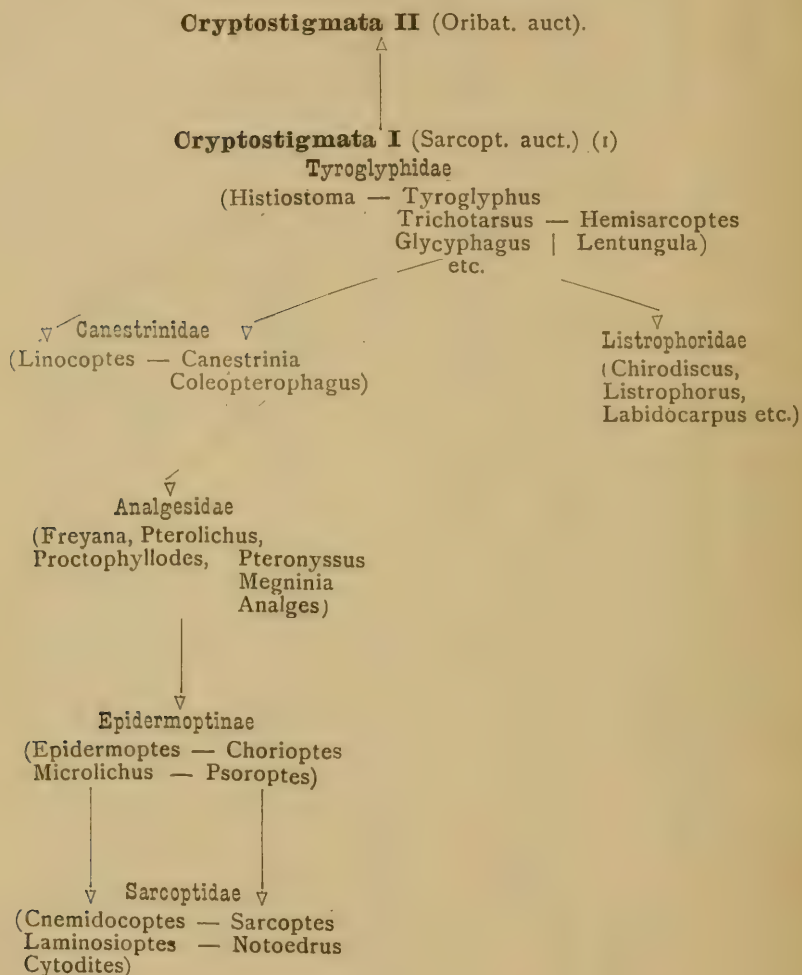
Fig. 7. Tarsi apex et ambulacrum *Tyroglyphi mycophagi*, (4 i paris, *m* sunt disculi adhaesionis, a ceterae litterae ut in fig. 6).



# Conspectus familiarum.

|                                                                                        |                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                           |                               |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <p>Adsunt in utroque sexu disculi genitales.<br/>(Quatuor numero circa genitalia).</p> | <p>Maxillae normales, pedes non ad pilos amplexandos deformati.</p>                                                                        | <p>Maxillae vel pedes alicuius paris in organa ad pilos hospitibus amplexandos deformata (<i>Mammalicolae</i>) . . . . .</p>                                                                                                                                                                                                                                                              | <p><b>Listrophoridae.</b></p> |
|                                                                                        |                                                                                                                                            | <p>Ambulacra tantum lata membranula constituta, ungue subvanido (<i>Insecticolae</i>) . . . . .</p>                                                                                                                                                                                                                                                                                       | <p><b>Canestrinidae.</b></p>  |
| <p>Deficiunt in utroque sexu disculi genitalis</p>                                     | <p>Ambulacra sexilia, acari isti scabiem non inducunt sed super plumarum barbulas degentes subinnocui (<i>Avicolae</i>) . . . . .</p>      | <p>Ambulacra ungue maiori vel minusculo, nec non (saepius) membranula composita (<i>Liberi</i>) . . . . .</p>                                                                                                                                                                                                                                                                             | <p><b>Tyroglyphidae.</b></p>  |
|                                                                                        |                                                                                                                                            | <p>Ambulacra longepedunculata. Acari isti super dermatum hospitum vivunt vel in dermate eodem, vel alibi interius, scabiem inducentes.</p>                                                                                                                                                                                                                                                | <p><b>Analgesidae.</b></p>    |
| <p>Deficiunt in utroque sexu disculi genitalis</p>                                     | <p>Ambulacra longepedunculata. Acari isti super dermatum hospitum vivunt vel in dermate eodem, vel alibi interius, scabiem inducentes.</p> | <p>Dymorphismus sexualis praecipue in corporis fabrica, pedum crassitie manifestissimus; adsunt semper in mari disculi copulationis. Vel innocui, vel scabiem debiliorem inducentes (<i>Avicolae</i> vel <i>mammalicolae</i>) . . . . .</p>                                                                                                                                               | <p><b>Epidermoptidae.</b></p> |
|                                                                                        |                                                                                                                                            | <p>Dymorphismus sexualis in corporis fabrica subnullus, tamen in organis adhaesionis pedum manifestus, sed non in pedum magnitudine; disculi copulationis in mari nulli (in duabus speciebus ex genere <i>Cnemidocoptes</i> manifesti) in dermate eodem vivitantes, scabiem graviorem inducentes, vel alibi in hospitibus infossi (<i>Avicolae</i> vel <i>mammalicolae</i>) . . . . .</p> | <p><b>Sarcoptidae.</b></p>    |

**GENERA PRAECIPUA CRYPTOSTIGMATUM**  
**SECUNDUM ORDINEM NATURALEM DISPOSITA**



(1) Primae sectionis, sive *Sarcoptidae* auctorum. Histi acari qui larvis Oribatinarum simillimi sunt et per genus *Nothrus* in *Cryptostigmati* secundae sectionis incurrunt e familia *Tyroglyphidarum* (ex acaribus liberis constituta) omnes descendere videntur, sed propter parasitismum, vel pseudoparasitismum degenerati, multo *Tyroglyphidis* inferiores.



## FAMILIA I<sup>a</sup> SARCOPTIDAE

(Tab. VI)

*Corpus rotundatum vel breviter ovale. Derma molle, scutis dorsualibus subevanidis vel nullis, striatum. Rostrum normale, mandibulis cheligeris, in (unico) genere Cytodites in haustellum deformatum. Pedes primi et secundi paris semper ambulacrati, ceteri vel ambulacro aucti, vel ambulacro destituti, setis longis terminati. Ambulacra longe pedunculata, unco nullo, tantum appendicula ampulliformi, vel infundibuliformi constituta. Disculi genitales in utroque sexu nulli. Disculi copulationis (maris) in duabus speciebus aberrantibus ex genere Cnemidocoptes manifesti, in ceteris nulli.*

*Dymorphismus sexualis propter corporis fabricam nullus.*

*Hypopi in hac familia non dignoscuntur.*

*Ovipari vel ovovivipari vel vivipari.*

*Habitant super aves et super mammalia, in epidermide eodem infossi vel alibi in corpore absconditi, vere parasitae, scabiem vel alia mala, saepius graviora, in hospitem inducentes.*

**Derma** in acaris familiae *Sarcoptidarum* semper molle est, pellucidum, nullo colore infuscatum. Adsunt tamen in nonnullis speciebus scuta quaedam punctulata, dorsum protegentia, colore albido vel vix pallidissime terreo, tamen minus dura, marginibus obsoletis, cephalothoracem partim et partem abdominis in medio occupantia. Sed scuta ista, tantum structura a cetero epidermide distinguuntur, quod epiderma circum crasse striatum sit, in scutis autem punctulatum vel quasi reticulatum.

In medio dorso, in speciebus ex generibus *Notoedrus* et *Sarcoptes*, epiderma in squamulis vel dentibus elevatur, retrorsus directis.

*Setulae* corpus adornantes semper simplices, plus minusve longae sunt, vel breviores, spiniformes; ceterum numquam in foliolas vel lacinias dilatatae.

**Corpus** subcirculare vel breviter ovale est, vix postice in mari sensim incisum, in nonnullis speciebus, praecipue ex genere *Cnemidocoptes*.

**Rostrum** conicum, breve, latiusculum, sub *tecto* quodam e cephalothorace procedente, partim absconditum. *Mandibulae* cheligerae, chela minuscula sunt auctae. In genere *Cytodites* rostrum in haustellum est deformatum, quod mandibulae, palpi et hypostoma simul concreta, tubulum sistant breve, ad hauriendos liquores aptum.

**Pedes** perbreves et crassiusculi sunt, articulis fere aequae longis ac latis compositi, conici, corpore semper multo breviores. Tarsi in unguem vel in ungues desinent, inter quos ambulacrum vel setulae inseruntur. *Ambulacra* infundibuliformia sunt et semper longe pedunculata. In pedibus omnibus foeminarum generis *Cnemidocoptes*, tarsi omnes unguibus binis terminati, ambulacris omnino deficiunt, sed in maribus eiusdem generis, longe pedunculata ambulacra in tarsis omnibus adsunt, manifestissima. In generibus *Notoedrus* et *Sarcoptes*, mas ambulacris gaudet in pedibus primi, secundi quartique paris, sed par tertium seta longiori est terminatum. Horum generum foeminae, interea, ambulacris tantum in pedibus primi secundique paris sunt auctae, et pedes tertii quartique paris seta longissima sunt praediti.

**Genitalia** (externa) semper in ventre sunt et disculis genitalibus omnino destituta.

*Penis* runcatus, brevis, in ventre, post pedes quarti paris conspicitur, posterius directus.

*Vulva* longe rimaeformis, labiis non striatis, circine prae vulvari numquam aucta, inter pedes tertii quartique paris vel antea est aperta.

**Disculi copulationis** nulli. Tamen in speciebus duabus ex genere *Cnemidocoptes* (*C. Gallinae*, *C. Columbae*) mares disculis copulationis gaudent, et hoc caractere, genus hoc inter *Sarcoptidas* et *Epidermoptidas* est inserendum. *Cn. mutans* et *C. fossor*, disculi copulationis tamen deficiunt.

**Dymorphismus** sexualis ergo conspicuus, exceptis generibus *Cytodites* et *Laminosioptes* in ambulacrorum dispositione, quod in generibus *Sarcoptes*, *Notoedrus*, *Cnemidocoptes*, pedes maris varie ambulacrati sint quam in foemina sua.

**Polymorphismus** propter varias marium eiusdem speciei formas vel foeminarum, in hac familia frustra inquirendus.

**Parthenogenesism** in acaris huius familiae dignovit primitus Cl. Trouessart.

### **Ovipari vel vivipari.**

Haec familia minus naturalis est, quia ex generibus interse se satis diversis constituta, interse tantum propter vitae consuetudines earumque effectus convenientes, ceterum e stemmatibus diversis descendentes, quod genera *Cnemidocoptes* et *Laminosioptes* cum *Epidermoptidis* avicolis melius convenient, *Sarcoptes* autem et *Notoedrus* cum ab *Epidermoptidis mammalicolis* certe descendeant, parasitismo ulteriori amplius modificati, et *Cytodites* incertae originis adpareant. Certe, dymorphismo sexuali (in pedum crassitie et corporis fabrica) nullo, interse conveniunt, familiamque constituunt, nec non disculis genitalibus nullis (excepto *Cnemidocoptes*) *Analgesidis* multo remotiorem quam familia *Epidermoptidarum*.

Certe unicus character qui ex habito et vitae consuetudine de quo hucusque usi sunt auctores pluri ad genera in subfamiliis vel familiis dividenda, simul *Epidermoptidas* elevatiores, *analgesidis* perproximas, *Sarcoptidis* inferioribus adpropinquando, quia omnes *acariasim* plus minusve evolutam inducentes, non validior est nec systema hoc exemplo dignum, quia larvae quoque *Trombidiorum* pluresque alii acari (*Tarsonemidae*) *acariasim* inducunt parasitice vivendo, et eadem species (*Psoralgas libertus*), scabiigera aetate iuniori, libera inter *Analgesidas* vel *Epidermoptidas* aetate maturiori est inserenda.

**Habitant** acari huius familiae, vel super aves in earum epidermide, plus minusve intossi (*Cnemidocoptes*, *Laminosioptes*), vel earumdem in organis respirationis celati (*Cytodites*) vel super mammalia, scabiem graviorem inducentes (*Sarcoptes*, *Notoedrus*).

## Explicatio tabulae VI.

- Fig. 1. *Cytodites nudus* mas. supinus.  
 Fig. 2.       »       »       foem. supina.  
 Fig. 3. *Laminosioptes cysticola* mas. supinus.  
 Fig. 4.       »       »       foem. supina.  
 Fig. 5. *Sarcoptes Canis* mas. supinus.  
 Fig. 6.       »       »       foem. supina.

## GENERA SARCOPTIDARUM.

Sic haec familia in genera dividi potest:

|                                              |                                                       |                                                                                                                          |                                                                      |
|----------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
|                                              | Pedes in utroque sexu pariter ambulacрати . .         | <b>Laminosioptes</b><br>( <i>Avicoli</i> )                                                                               |                                                                      |
|                                              |                                                       | Foemina adulta tarsi ambulacris nullis; mas ambulacris in pedibus omnibus, benepedunculatis ( <i>Avicoli</i> ) . . . . . | <b>Onemidocoptes</b>                                                 |
| Rostrum mandibulis palpisque benemanifestis. | Pedes dispariter in mari quam in foemina ambulacрати. | Foemina adulta pedibus primi et secundi paris ambulacрати (mas pedibus primise-<br>cundi quartique paris ambul.)         | Anus terminalis . . . . . <b>Sarcoptes</b><br>( <i>Mammulicoli</i> ) |
|                                              |                                                       |                                                                                                                          | Anus dorsualis. <b>Notoedrus</b><br>( <i>Mammulicoli</i> )           |

Rostrum mandibulis simul concretis, in haustellum deformatis (Unicum genus sic ore conformato inter *Cryptostigmatis* aliisque acaris) (*Avicoli*) . . . . . **Cytodites**



GENUS I. **Cytodites Mègnin** 1870.

Unica huius generis species est *Cytodites nudus* (Viz.) Mègn. (in trachea et receptaculis aereis Gallinaceorum — Europa).

GENUS II. **Laminosioptes Mègnin** 1880.

Etiam in hoc genere species unica est sive *Laminosioptes cysticola* Vizioli. (Sub epidermide Gallinarum — Europa).

Neglige:

*Cytoleichus sarcoptoides* Mègn. sive *Cytodites nudus*,  
*Laminosioptes Gallinarum* Mègnin idest *Laminosioptes cysticola* Vizioli.

GENUS III. **Notoedrus Bailliet et Lucet** 1893.

Sic generis huius species hucusque notae dividantur:

|                                                                                                              |                                                        |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Dorsum squamulis obtusis auctum, spinulae iliacaе robustae, anus in dorso at margini postico adpropinquatus. | Super <i>Felem catum</i> . . . . N. Cati Hering        |
|                                                                                                              | Super <i>Leporem cuniculum</i> . . N. Cuniculi Gerlach |

Dorsum squamulis nullis; spinulae iliacaе exiliores; anus in medio dorso apertus (Super *Mures, Arvicolas*) . . . . . N. Muris Mègn.

GENUS IV. **Sarcoptes Latreille** 1806.

Difficilius generis huius species intersese distinguntur, nisi hospes consideretur; species hucusque notae sunt:

α in Europa quoque viventes (\*).

*Sarcoptes hominis* Hering. (Super *Homo sapiens*);  
*Sarcoptes scabiei crustosae* Fürstemberg. (*Homo sapiens*);

---

(\*) Haec species non *per hospitem* sunt expositae quod plures super hospites varios vivere possint.



*Sarcoptes chiropteralis* Trouessart. (*Rhinolophus ferrumequinum*, *Vesperugo serotinus*);

*Sarcoptes Canis* Gerl. (*Canis familiaris*, *Homo* etc.);

*Sarcoptes Lupi* Mègnin. (*Canis lupus*);

*Sarcoptes Vulpis* Fürstemberg. (*Canis Vulpes*);

*Sarcoptes Furonis* Railliet. (*Putorius Furo*);

*Sarcoptes Equi* Gerlach. (*Equus Caballus*, *E. Asinus* etc.);

*Sarcoptes Suis* Gerlach. (*Sus Scropha*);

*Sarcoptes parvulus* Canestrini. (*Sus Scropha*);

*Sarcoptes Caprae* Fürstemberg. (*Capra Hircus*);

*Sarcoptes Ovis* Mègnin. (*Ovis Aries*);

*Sarcoptes Rupicaprae* Hering. (*Antilope Rupicapra*);

*Sarcoptes praecox* Canestrini. (*Lepus Cuniculus*).

### β Extraeuropeai:

*Sarcoptes Leonis* Delafond. et Bourguignon. (*Felis Leo*):

*Sarcoptes Dromedarii* Gervais. (*Camelus Dromedarius*. *C. batrianus*, *Auchenia Lama*, *Camelopardalis Giraffa*, *Antilope bubalus*);

*Sarcoptes Hydrochoeri* Mègnin. (*Hydrochoerus Capybara*);

*Sarcoptes Wombati* Railliet. (*Phascolomys Wombat* — Australia).

Generis huius species negligendae haec sunt:

*Sarcoptes Alepis* Raill. et Lucet (etc.) sive *Notoedrus Muris*;

*Sarcoptes anacanthus* Delafond et Bourguignon est *Cnemidocoptes mutans*;

*Sarcoptes Cameli* Mègnin (nec non Perroncito etc.) idest *Sarcoptes Dromedarii*;

*Sarcoptes Cati* Hering (nec non Gerlach, Haller, Perroncito etc.) est *Notoedus Cati*;

*Sarcoptes Cynotis* Hering (Haller etc.) sit *Otodectes Cynotis*;

*Sarcoptes cysticola* Vizioli appelletur *Laminosioptes cysticola*;

*Sarcoptes Gallei* Owen est *Sarcoptes Hominis*;

*Sarcoptes hyppopodos* Hering est *Glycyphagus spinipes*;

*Sarcoptes laevis* Auct. comprehendit *Cnemidocoptes Gallinae* et *Cnem. Columbae*.

*Sarcoptes laevis* var. *Columbae* Auct. idest *Cnemidocoptes Columbae*.

*Sarcoptes laevis* var. *Gallinae* Auct. appelletur *Cnemidocoptes Gallinae*;

*Sarcoptes minor* Fürstemb. comprehendit *Notoedrus Cuniculi* et *N. Cati*;

*Sarcoptes minor* var. *Cati* Railliet etc. sit. *Notoedrus Cati*;

*Sarcoptes musculus* Koch etc. est *Myocoptes musculus*;

*Sarcoptes mutans* Robin (nec non Mègnin, Perroncito etc.) sit *Cnemidocoptes mutans*;

*Sarcoptes nidulans* Hering est *Sarcopterus nidulans* (inter *Prostigmata*);

*Sarcoptes notoedres* Delafond et Bourguignon (Mègnin etc.) est *Notoedrus Muris* et *N. Cati*;

*Sarcoptes notoedres* var. *Muris* Mègn. idest *Notoedrus Muris*;

*Sarcoptes notoedres* var. *Cati* Mègn. appelletur *Notoedrus Cati*;

*Sarcoptes palumbinus* Koch, (Walken. etc.), quid est? an ex genere *Cnemidocoptes*?

*Sarcoptes passerinus* Latreille est *Analges passerinus*;

*Sarcoptes scabiei* Latreille (etc. etc.) sit *Sarcoptes Hominis*;

*Sarcoptes scabiei* var. *Cameli* Mègn. (Railliet etc.) est *Sarcoptes Dromedarii*;

*Sarcoptes scabiei* var. *Canis* Railliet est *Sarcoptes Canis*;

*Sarcoptes scabiei* var. *Caprae* Mègnin (Railliet etc.) est *Sarcoptes Caprae*;

*Sarcoptes scabiei* var. *Equi* Mègnin (Railliet) sit *Sarcoptes Equi*;

*Sarcoptes scabiei* var. *Furonis* Railliet appelletur *Sarcoptes Furonis*;

*Sarcoptes scabiei* var. *Hominis* Mègnin (Railliet etc.) sit *Sarcoptes Hominis*;

*Sarcoptes scabiei* var. *Hydrochoeri* Mègnin est *Sarcoptes Hydrochoeri*;

*Sarcoptes scabiei* var. *Leonis* Railliet appelletur *Sarcoptes Leonis*;

*Sarcoptes scabiei* var. *Lupi* Mègnin (Railliet etc.) est *Sarcoptes Lupi*;

*Sarcoptes scabiei* var. *Ovis* Mègnin (Railliet etc.) sit *Sarcoptes Ovis*;

*Sarcoptes scabiei* var. *Suis* Mègnin (Railliet etc.) appelletur *Sarcoptes Suis*;

*Sarcoptes scabiei* var. *Vulpis* Mègnin (Railliet etc.) sit *Sarcoptes Vulpis*;

*Sarcoptes scabiei* var. *Wombati* Mègnin est *Sarcoptes Wombati*;

*Sarcoptes squamiferus* Hering (Fürstemberg, Haller etc.) est *Sarcoptes Canis*;

*Sarcoptes strigis* Genè est hypopus (*Hypodectes*) *analgesidae* cuiusdam.

## GENUS V. *Cnemidocoptes* Fürstemb. 1870.

Huius generis species bene notae et in Italia compertae tres sunt:

Super gallinacearum pedes victitans,  
scabiemquamdam crustosam late producens . . **Cn. mutans** (**Rob. )**  
**Fürst.**

Super ceteri corporis epiderma in avibus victitantes, plumas basi truncantes.

{ Epimeris anticis intersese discretis (*Gallus domesticus*) **Cn. Gallinae** **Raill.**

{ Epimeris anticis intersese linea transversa, chitinea conjunctis (*Columba dom.*) **Cn. Columbae** **Raill.**

Species non italica est *Cnemidocoptes fossor* Ehlers (super *Munia maia*).

Species rursus inquirendae, cuius mas adhuc latet sunt:  
*Cnemidocoptes Philomelae* Sicher (super *Luscinia philomela*, Italia); *Cnemidocoptes glaberrimus* Sicher (super *Picus medius*, Italia).

### Neglige:

*Cnemidocoptes viviparus* Fürstemb. qui est *Cnemidoc. mutans* appellandus.

In hac familia negligenda sunt genera et species sequentia:

Gen. **Dermatodectes** Fürstemberg; idest *Psoroptes* Gervais;

### Species:

*Dermatodectes communis* Fürstemb. (nec non Bourg. et Delaf. etc.) sive *Psoroptes Equi*;

*Dermatodectes Equi* Gerlach (etc.) sive *Psoroptes Equi*;

*Dermatodectes Ovis* Gerlach (etc.) est *Psoroptes Onis*.

Gen. **Dermatophagus** Fürstemberg synonym. gen. *Chorioptes* Gervais;

Spec. *Dermatophagus bovis* Fürstemb. idest *Chorioptes Bovis*;

Gen. **Dermatophagoides** Bogdanoff. sive *Chorioptes* Gerv.;

Spec. *Dermatophagoides Scheremetenskyi* Bogdan. ex gen. *Chorioptes*.

Gen. **Dermatoryctes** Ehlers synonym. gen. *Cnemidocoptes* Fürstemb.;

Spec. *Dermatoryctes fossor* Ehlers idest *Cnemidocoptes fossor*;

*Dermatoryctes mutans* Ehlers sive *Cnemidocoptes mutans*.

Gen. **Sarco-Dermatodectes** Delafond et Bourguignon idest *Chorioptes* Gerv.

Gen. **Symbiotes** Gerlach idest *Chorioptes* Gervais;

### Species:

*Symbiotes auricularum* Railliet et Cadot est *Otodectes Cynotis*;

*Symbiotes avus* Trouess. et Neum. est *Microlichus avus*;

*Symbiotes Bovis* Gerlach (Perroncito etc.) sit *Chorioptes Bovis*;

*Symbiotes Equi* Gerlach (Perroncito etc.) est *Chorioptes Equi*;

*Symbiotes ecaudatus* Perroncito est *Otodectes Cynotis*;

*Symbiotes spathiferus* Mègnin idest *Chorioptes Equi*;

*Symbiotes tripilis* Michael est *Caparinia tripilis*.



## FAMILIA II. EPIDERMOPTIDAE

(Tab. VII - VIII)

*Corpus varie conformatum, in foeminis plerumque rotundato-ovale, humeratum. Derma submolle, scuto cephalothoracico (saltem) bene manifesto, punctulato, ceterum striatum. Rostrum normale, aliquando tamen maiusculum. Pedes in maribus plerumque diffformes; in foemina tertii; vel tertii et quarti paris aliquando ambulacro destituti. Ambulacra saepius longe pedunculata, apice infundibuliformia. Disculi genitales in utroque sexu nulli; Disculi copulationis in mari manifesti.*

*Dymorphismus sexualis etiam corporis fabrica perconspicius.*

*Hypopi in hac familia non dignoscuntur.*

*Ovipari vel ovovivipari.*

*Habitant super avium epiderma, scabiem leniorem vel nullam inducentes, super mammalia scabiem sat gravem conficientes.*

**Derma** in acaris familiae huius pellucidulum, hyalinum est, undique striatum. Sunt tamen scutula melius chitinea vix pallide terrea, crebrius punctulata, saltem in cephalothoracis dorso manifesta, quod est in *Epiderm. mammalicolis*. Abdomen in nonnullis speciebus ex *Epiderm. avicolis* scutis quoque in dorso augitur, quo caractere etiam species haec valde *analgesidis* adpropinquantur. *Setulae* corpus adornantes, vel simplices longiores, vel spiniformes, vel etiam late foliiformes (in extremo abdomine marium nonnullorum conspicuae).

**Corpus** varie conformatum est, in foeminis quam in maribus; semper bene humeratum, postice in foeminis (excepto genere *Psoralges*) rotundatum, sed in mari saepius plus minusve incisum est, aliquando bifidum, bicornе etc.

**Rostrum** conicum vel breve, vel longum validumque (*Chorioptes*, *Psoroptes*) tamen mandibulis cheligeris, palpis, hypostomate ut in ceteris familiis constituitur.

**Pedes** mediocres, conici. *Tarsi* in unguem apice plerumque desinentes. Ambulacra saepius, pedunculata, infundibuliformia sunt; pedunculis longioribus, quasi articulatis in mammalicolis, in avicolis brevioribus, simplicibus. Ambulacra generis *Heteropsorus*, membranula latissima sunt constituta. Pedes tertii paris ambulacris sunt destituti in foeminis generis *Psoroptes*; tertii quartique paris in foeminis generis *Chorioptes*. Sed in genere *Psoralgæ* larvæ et nymphae, in pedibus posticis ambulacris carent, quum adulti utriusque sexus bene ambulacratî sint. In ceteris generibus ambulacra in utroque sexu in pedibus omnibus adsunt, pedunculata.

**Genitalia** (externa) semper in ventre sunt, disculis autem genitalibus omnino destituta. Penis brevissimus, conicus, vulva circine prae vulvari saepius aucta.

**Disculi copulationis** semper in mari manifesti.

**Dymorphismus** sexualis bene conspicuus, precipue tertiorum pedum maris crassitie et longitudine, ita ut (exceptis generibus *Pachylichus* et *Microlichus*), species huius familiae valde generibus *Megninia*, prima facie, sint conformes.

**Polymorphismus** in maribus numquam inventus est.

**Ovipari vel ovovivipari.**

Familia haec ex speciebus est constituta, inter *Analgesidas* et *Sarcoptidas* insitas, et praecipue parasitismi causa degenerata. Species ergo minus parasitae conveniunt cum *Analgesidis* et sunt istae species inter *Epiderm. avicolas*; ceterae species gravius parasitae, sive mammalicolae, in *Sarcoptidas* veras incurrunt, praecipue pedibus foeminarum ambulacris destitutis, scutis dorsualibus minus evolutis, consuetudine vitae, per quam scabiem aliquando sat gravem in hospitibus inducunt. Epidermicolae tantum sunt species super aves viventes; ex excreatis in auribus mammalium obviis victitantes sunt species generis *Psoroptes*; in aetate iuniori parasitae, acariasim conficientes, demum in aetate adulta liberi sunt *Psoralgæ*; semper parasitae, scabiem sat gravem inducentes sunt species ex genere *Chorioptes*. Omnes tamen dymorphismo sexuali manifestiori, aliisque characteribus satis a *Sarcoptidis* diversi; ambulacris autem pedunculatis, etc. ab *Analgesidis* remoti.



**Habitant** acari huius familiae vel super avium epiderma, non scabiem inducentes, vel super mammalia, plus minusve hospiti suo infesti.

## Explicatio tabularum.

### Tab. VII.

#### (*Psoroptina*)

- Fig. 1. *Psoroptes Bovis* mas supinus.  
 Fig. 2.       >       > foem. supina.  
 Fig. 3. *Otodectes Cynotis* mas. supinus.  
 Fig. 4.       >       > foem. supina.

### Tab. VIII.

#### (*Epidermoptina*)

- Fig. 1. *Rivoltasia bifurcata* mas. supinus.  
 Fig. 2.       >       > foem. supina.  
 Fig. 3. *Microlichus avus* mas. supinus.  
 Fig. 4.       >       > foem. supina.

## SUBFAMILIAE EPIDERMOPTIDARUM.

Sic familia Epidermoptidarum in subfamiliis dividi potest:

Adsunt ambulacra in pedibus omnibus utriusque sexus . . . . . **Epidermoptina**

Deficiunt ambulacra in pedibus tertii vel tertii  
et quarti paris in foeminis. . . . . **Psoroptina**

## PSOROPTINARUM GENERA.

Sic dividantur in genera:

Utriusque sexus adulti pedes omnes ambulacрати . . . **Psoralges**

iam. Foeminae ambulacra in pedibus omnibus excepto  
tertii paris . . . . . **Psoroptes**

Maris abdominis lobuli appendicibus foliaceis aucti . **Chorioptes**

Maris abdomen  
in lobulos duos  
postice pro-  
ductum.

Maris abdominis lo-  
buli setulis sim-  
plicibus aucti. . . **Caparinia**

Maris abdomen postice tantum  
incisum, in lobulos haud pro-  
ductum . . . . . **Otodectes**

GENUS I. *Otodectes* Canestr. 1894.

Species duae (Europeae) ex hoc genere sunt intersese tantum statura et hospite diversae, sive:

Foem. 420  $\mu$ ; mas 380  $\mu$ . (*Canis familiaris*,  
*Felis catus*) . . . . . O. Cynotis Hering

Foem. 380  $\mu$ .; mas 270  $\mu$ . (*Putorius Furo*) . O. Furonis Raill.

Nulla alibi species est collecta.

## GENUS II. *Caparinia* Canestr. 1894.

Species huius generis hucusque notae tres sunt:

|                                                                                                                                                                                                        |                                                                                                                                                   |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Pedes quarti paris fere rudimentales;<br>pedes tertii quartique paris setis tribus longissimis terminati; Abdomen setis quatuor terminatum. Foem. tantum nota ( <i>Erinaceus europaeus</i> ) . . . . . |                                                                                                                                                   | <b>C. triplilis (Mich.) Can.</b> |
| Pedes quarti paris satis evoluti; pedes tertii quartique paris setis tribus mediocribus terminati; abdomen postice bisetum.                                                                            | Setulae abdominis posticae longiores; mas 320 $\mu$ . foem. 360 $\mu$ . ( <i>Hyena</i> ) . . . . .                                                | <b>C. Hyenae (Még.) Can.</b>     |
|                                                                                                                                                                                                        | Setulae abdominis posticae dimidio curtiores quam in <i>C. Hyenae</i> ; mas 400 $\mu$ ; Foem. 450 $\mu$ . long. ( <i>Canis vulpes</i> ) . . . . . | <b>C. Vulpis (Még.) Can.</b>     |

Nulla species huius generis in Italia est collecta.

## GENUS III. *Psoroptes* Gervais 1841.

Species huius generis intersese tantum magnitudine et hospite diversae videntur; sunt enim:

### $\alpha$ *Europeae*.

|                                                                                               |                           |
|-----------------------------------------------------------------------------------------------|---------------------------|
| Foem. 600 $\mu$ .; mas 500 $\mu$ . ( <i>Equus Caballus</i> , <i>E. asinus</i> etc.) . . . . . | <b>Ps. Equi Gerlach</b>   |
| Foem. 590 $\mu$ .; mas 467 $\mu$ . ( <i>Bos Taurus</i> ) . . . . .                            | <b>Ps. Bovis Gerlach</b>  |
| Foem. 720 $\mu$ .; mas 559 $\mu$ . ( <i>Ovis Aries</i> ) . . . . .                            | <b>Ps. Ovis Gerlach</b>   |
| Foem. 760 $\mu$ .; mas 580 $\mu$ . ( <i>Lepus Cuniculus</i> ) . . . . .                       | <b>Ps. Cuniculi Mégn.</b> |

### $\beta$ *Extraeuropeae*.

|                                                                   |                          |
|-------------------------------------------------------------------|--------------------------|
| Foem. 680-700 $\mu$ .; mas 510 $\mu$ . ( <i>Sp. ?</i> ) . . . . . | <b>Ps. Gazellae Can.</b> |
|-------------------------------------------------------------------|--------------------------|

Ex genere *Psoroptes* negligendae sunt species sequentes:

*Psoroptes communis* auct. sive *Psoroptes Bovis*, *Cuniculi*, *Ovis*, *Equi*  
*Psoroptes communis* var. *Bovis* Railliet idest *Psoroptes Bovis*.

*Psoroptes communis* var. *Cuniculi* Railliet est *Psoroptes Cuniculi*.

*Psoroptes communis* var. *Ovis* Railliet est *Psoroptes Ovis*.

*Psoroptes longirostris* Mégnin comprehendens varias huius generis species.

*Psoroptes longirostris* var. *Bovis* Mégn. idest *Psoroptes Bovis*.

*Psoroptes longirostris* var. *Cuniculi* Mégn. est. *Psoroptes Cuniculi*.

*Psoroptes longirostris* var. *Equi* Mégn. appelletur *Psoroptes Equi*.

*Psoroptes longirostris* var. *Ovis* Mégn. sit *Psoroptes Ovis*.

#### GENUS IV. *Chorioptes* Gervais 1841.

Etiam generis huius species duae hucusque cognitae, tantum hospite diverso sunt distinguendae, minusque magnitudine (1). Haec sunt:

Super *Equum Caballum* . . . . . **Ch. Equi** Hering.

Super *Bovem Taurum* . . . . . **Ch. Bovis** Gerlach.

Species huius generis negligendae: quia aliarum synonymimae sunt:

*Chorioptes auricularum* Raill. etc. eiusque variet, *Ch. auricul. var Canis* et var. *Cati* sive *Otodectes Cynotis*.

*Chorioptes auricularum* var. *Furonis* Raill. est *Otodectes Furonis*.

*Chorioptes ecaudatus* Mégnin sive *Otodectes Cynotis*.

*Chorioptes Hyenae* Perroncito est *Caparinia Hyenae*.

*Chorioptes setiferus* Mégnin appelletur *Chorioptes Equi*.

*Chorioptes setiferus* var. *Hyenae* Mégn. sit *Caparinia Hyenae*.

*Chorioptes setiferus* var. *Vulpis* Mégn. est *Caparinia Vulpis*.

*Chorioptes Symbiotes* var. *Bovis* Railliet idest *Chorioptes Bovis*.

*Chorioptes Symbiotes* var. *Equi* Raill. sit *Chorioptes Equi*.

*Chorioptes vulpis* Perroncito idest *Caparinia Vulpis*.

#### GENUS V. *Psoralgae* Trouessart 1896.

Unica huius generis species extraeuropaea est *Psoralgae libertus* Trouess. (super *Tamandua tetradactyla* — America) collecta.

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(1) Exempla nostra utriusque speciei, minime interese magnitudine sunt diversa nulloque alio caractere, quare supervacaneum delineare ambas putavi, tamen *Ch. Equi* secundum Gerlach super *Bovem* non vivit, neque *Ch. Bovis* super *Equum*; hac re species diversas esse videtur.

## EPIDERMOPTINARUM GENERA.

Tribus haec, analgesidis propinquior, sic dividatur:

|                                                     |                                                          |                                                                                            |                                                    |                                                                          |                     |
|-----------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------|---------------------|
| Membranula ambulacris, sexilis, latissima . . . . . |                                                          |                                                                                            |                                                    |                                                                          | <b>Heteropsorus</b> |
| Membranula ambulacris pedunculata, minor.           | Maris pedes tertii paris ceteris valde robustiores . . . |                                                                                            |                                                    |                                                                          | <b>Dermation</b>    |
|                                                     |                                                          | Pedes 1 <sup>i</sup> et 2 <sup>i</sup> paris in utroque sexu ceteris robustiores . . . . . |                                                    |                                                                          | <b>Microlichus</b>  |
|                                                     |                                                          |                                                                                            | Abdomen in mari postice integrum, rotundatum . . . |                                                                          | <b>Pachyllichus</b> |
|                                                     |                                                          |                                                                                            |                                                    | Adest in foemina epigynium chitineum. Tarsi omnes apice ungue terminati. | <b>Epidermoptes</b> |
|                                                     |                                                          |                                                                                            | Abdomen in mari postice bicornae.                  | Abest in foemina epigynium. Tarsi omnes ungue apicali destituti . . .    |                     |
|                                                     |                                                          | Maris pedes tertii paris ceteris statura similes vel sub-similes.                          | Pedes omnes in utroque sexu pariter evoluti.       |                                                                          |                     |

GENUS VI. **Microlichus** Trouessart et Neumann 1887.

Huius generis species haec tantum (Europeae) hucusque agnoscuntur:

Abdomen foeminae setulis sex praeditum  
(*Gallinago maior*, *Gallinago nigripennis*, *Eulampis holosericeus*, *Garrulus glandarius*, *Picus medius*) . . . . . **M. avus** Trouess.

Abdomen foeminae setulis tantum duabus longioribus praeditum (*Perdix cinerea*) (1) . . **M. Perdix** Can.

(1) Species minus bene cognita; mas ignotus est, et foemina tantum una est a Cl. Canestrinio collecta.



GENUS VII. **Heteropsorus Trouessart et Neumann.** 1887.

Unica huius generis species hucusque nota est *Heteropsorus pteroptopus*, super *Cyaneculam succicam*, *Emberizam selenichum*, *Emberizam cirium* in Gallia collecta, nec non super *Sylviam arundinaceam* in Italia, sed dubium est an sit potius nympa quam forma adulta. Certe foeminae maresque sexuati non dignoscuntur.

GENUS VIII. **Pachyllichus Canestrini** 1894.

Species unica huius generis dignoscitur, sive *Pachyllichus crassus*, super *Ruticillam phoenicurum* et *licum medium* Patavii collecta.

GENUS IX. **Rivoltasia Canestrini** 1894.

Sic dividantur huius generis species.

|                                                                                                 |                                                                                                                                              |                                             |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Maris tertii paris tarsus dente retrorsus<br>directo praeditus ( <i>Vidua paradisea</i> ) . . . |                                                                                                                                              | <b>R. uncinata (Rob. et<br/>Még. Berl.)</b> |
| Maris tertii paris<br>tarsus<br>inermis                                                         | Maris quarti paris tarsus dente retrorsus directo praeditus ( <i>Gallinacei</i> ) . . . . .                                                  | <b>R. bifurcata (Rlv.) Can.</b>             |
|                                                                                                 | Maris disculi copulationis in summo arcu incisurae abdominalis insiti ( <i>Passer domesticus</i> ) . . . . .                                 | <b>R. dermicola (Trouess.)<br/>Can.</b>     |
|                                                                                                 | Maris quarti paris tarsus inermis. Maris disculi copulationis in medio abdominalis lobulorum insiti ( <i>Garrulus glandarius</i> ) . . . . . | <b>R. latior Can.</b>                       |

Supradictae species omnes in Italia collectae sunt, excepta *Rivoltasia uncinata*, quam collegerunt Cll. Robin et Mègnin in Gallia sed super aves exoticas (*Vidua paradisea*).

# GENUS X. **Epidermoptes Rivolta** 1876.

Species duae huius generis haec sunt, hucusque nobis notae:

Rostrum latum crassumque, palpis in foemina longe setigeris (*Eulampis holosericeus*) . . . . . **E. cephalotes Trouess. et Neum.**

Rostrum mediocre, haud abnorme (*Gallus domesticus*) . . . . . **E. bilobatus Rivolta**

Species ergo sunt:

*Epidermoptes bilobatus Rivolta* (super *Gallus domesticus*, Italia, Germania); *Epidermoptes cephalotes* Trouess. et Neum. (*Eulampis holosericeus*, Martinica).

Negligas:

*Epidermoptes bihamatus* Trouess. et Neum. qui est *Dermation bihamatum*.

*Epidermoptes uncinatus* (Mègnin) Trouess. et Neum., qui nunc est appellandus *Rivoltasia uncinata*.

*Epidermoptes bifurcatus* Rivolta nec non Trouessart et Neum. idest *Rivoltasia bifurcata*.

*Epidermoptes bifurcatus* var. *dermicola* Trouess. et Neum., idest *Rivoltasia dermicola*.

# GENUS XI. **Dermation Trouessart et Neumann** 1888.

Notum huius generis est tantum *Dermation bihamatum* Trouessart et Neumann, in cellulis epidermicis nec non in folliculis plumarum *Porzanae Bailloni* Europae.

### FAMILIA III. ANALGESIDAE

(Tabb. IX-X)

*Corpus varie conformatum. Derma plerumque scutis duris protectum, ceterum crasse striatum.*

*Rostrum normale, mandibulis cheligeris.*

*Pedes primi et secundi paris semper ambulacрати, plerumque etiam tertii et quarti, aliquando tamen in maribus nonnullorum generum, pedes tertii vel quarti paris ungue inarticulato terminati sunt.*

*Disculi genitales semper nulli in utroque sexu.*

*Disculi copulationis fere semper manifestiores.*

*Dymorphismus sexualis, propter corporis pedumque fabricam plerumque maior.*

*Hypopi paucorum generum dignoscuntur.*

*Ovipari.*

*Habitant super aves, in earum plumis, ex succis plumarum vicitantes, vel plumas easdem corrodescentes, numquam sub epidermide (si adulti) inquirendi, vel sanguinem haurientes.*

**Derma** in acaribus huius familiae, rarius exile et totum pellucidum est, plerumque in abdominis et antici dorso, scutis augitur durioribus, plus minusve dorsi occupantibus; terreis vel testaceis vel badiis, punctulatis aut areolatis. Ceterum derma circa scuta haec, striis crassis ornatur et pellucidum adparet.

Saltem cephalothorax in dorso scuto trigono vel vitis chitineis durioribus est praeditus.

Ad ventrem, inter epimera, derma undique striatum, striis crassis.

Sulcus thoraco—abdominalis fere semper perconspicuus.

**Setulae** corpus adornantes varie fabricatae sunt, vel simplices vel flabelliformes vel late toliiformes, numquam plumosulae. In nonnullis speciebus, laminulae chitinae, hyalinae, corpus, ad margines vel postice adornant.

**Corpus** varie conformatum est; semper longius quam latum, aliquando autem elongatissimum, ovale, subrhombeum, vel lateribus subparallelis; postice truncatum, rotundatum, acutum, mucronatum vel plus minusve profunde incisum, bilobum ect. ect. Ad species dignoscendas corporis fabrica optimos praebet characteres.

Plerumque scapulae sat prominulae sunt et setis vel spinis armatae.

**Rostrum** conicum est et in plurimis speciebus modestum, tamen in genere *Falciger* maiusculum, longiusque in speciebus generis *Bdellochynchus*. *Mandibulae* semper cheligerae, chela plerumque breviori; in genere *Falciger* tamen, maris digitus chelae ultra productus est et falcatus. *Hypostoma* ut in ceteris familiis, tamen in speciebus plurimis, membranula laterali denticuliformi augitur (*Pterocolus*, *Freyana* Caput - *Medusae* etc).

**Pedes** mediocres longitudine sunt et corpore breviores, excepto genere *Falciger*, in quo corpus longitudine aequant. Sed in maribus nonnullorum generum pedes tertii paris vel quarti, vel utriusque paris, mire incrassantur et intersese quasi forcipem sistunt. Aliquando etiam calcaribus sunt armati, vel tuberculis in interiori margine, quod videbis in genere *Analges* etc.

*Ambulacra* semper sunt in pedibus primi et secundi paris, et plerumque etiam in tertii et quarti, sed in generibus nonnullis (*Analges*, *Xoloptes* etc.) tertii paris tarsus, vel quarti paris, in unguem desinit haud articulatam, vel in ungues binos (*Analges*), et ambulacro est destitutus.

Ceterum ambulacra membranula maiuscula, aliquando latiori, cordiformi, vix pedunculata sunt constituti, et unguis nullus est.

**Genitalia** externa semper in ventre sunt, et numquam disculis genitalibus aucta.

*Penis* vel minusculus, vix conspicuus, vel mediocris unciformis, vel longissimus, flagelliformis, corpore toto longior, spiraliter convolutus aut posterius directus, flagelliformis. Plerumque penis inter posticorum pedum epimera est insitus.

*Vulva* bilabiata, longitudinalis, in medio ventre aperta, plerumque circine chitineo, semicirculari, anterieus aucta.



**Disculi copulationis** in plurimis speciebus (exceptis maribus quibusdam homeomorphis) sunt, et valde conspicui, utrinque ad anum manifesti, discoidales, sexiles vel plus, minusve clavati.

**Dymorphismus** sexualis in familia hac manifestissimus, quod mares plerumque corporis fabrica, pedum magnitudine aliisque characteribus valde a foeminis suis sint diversi.

**Polymorphismus** etiam marium est in nonnullis generibus (*Analges*, *Falciger*, *Bdellorhynchus*) quod mares adsint parum a foeminis suis diversi, et isti homeomorphi dicuntur aliquae diversissimi, qui heteromorphi sunt dicendi.

Foeminae, praecipue *Proctophyllodum*, adhuc immaturae (puberae) cum mari in coitu coniunguntur et post coitum, exuvia reiecta, in foeminam maturam mutantur, corporis fabrica valde a foemina in coitu obvia diversa, staturaque maiori.

**Hypopi** nonnullarum specierum, praecipue ex *Pterolichinis* dignoscuntur, nomine *Hypodectes* iam descripti, et sub epidermide avium infossi, quod bene dignovit Mègnin.

**Ovipari** sunt acari huius familiae.

**Habitant** omnes super aves, in plumis absconditi, super barbulas et in caule eodem plumarum quiescentes, sanguine tamen non victitantes.

Familia haec valde naturalis est, specierum generumque ditissima, ex quibus plurimas invenit in totius mundi avibus Cl. Trouessart; tamen ab *Epidermoptidis* difficilius distingui potest, nisi tamen ambulacris subsexilibus, et habitatione numquam in dermate hospitem, sed tantum super plumas.



## Explicatio tabularum.

## Tab. IX.

- Fig. 1. *Dermoglyphus elongatus* mas supinus  
 Fig. 2.       "       "       foem supina.  
 Fig. 3. *Pterolichus Squatarolae* mas supinus.  
 Fig. 4.       "       "       foem. supina.  
 Fig. 5. *Hypodectes Pterolichi* rallorum, supinus.

## Tab. X.

- Fig. 1. *Analges corvinus* mas supinus.  
 Fig. 2. *Analges clavipes* foem. supina.  
 Fig. 4. *Proctophyllodes Ampelidis* mas supinus.  
 Fig. 5.       "       "       foem. supina (generans).  
 Fig. 6.       "       "       foem.       "       in coitu capta.

SUBFAMILIÆ **Analgesidarum.**

Sic familia Analgesidarum in subfamiliis dividenda est:

|                                                                                                    |                         |                                                                                                                                     |  |                         |
|----------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------|
| Foeminae adultae in abdomine postico setulis tantum auctae, apophysibus vel corniculis destitutae. | Super plumas degeneres. | In caule eodem plumarum insiti et absconditi . . . . .                                                                              |  | <b>Syringobiina (1)</b> |
|                                                                                                    |                         | Mares pedibus suis parum a foeminis diversi . . . . .                                                                               |  | <b>Pterolichina</b>     |
|                                                                                                    |                         | Mares pedibus tertii vel quarti paris valde ceteris maioribus ab iisdem foeminae magnitudine diversis ( <i>crassioribus</i> ) . . . |  | <b>Analgesina</b>       |
|                                                                                                    |                         | Foeminae adultae in abdomine postico apophysibus chitineis ensiformibus vel corniculis paeditae . . . . .                           |  | <b>Proctophyllodina</b> |

(1) *Syringobidina* ex speciebus propter vitae methodum characteribus peculiaribus insignitis constituta videntur et ex ceteris analgesidarum generibus procedentibus, quod genus *Thecharthra* generi *Pterolichus* correspondit; genus *Syringobia*, generi *Pseudalloptes*; genus *Neumannia* generi *Xoloptes*; genus *Dermoglyphus* et *Sphero gastr a* generi *Pteronyssus*.

SUBFAMILIA *Syringobitna*.

Sic in genera est subdividenda.

Foeminae abdomen mucrone medio longiori postice  
 praeditum . . . . . **Anasicudlon.**

|                                                                                      |   |                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pedes omnes maris inter sese crassitie pares a pedibus iisdem foeminae haud diversi. | { | <i>Pterolichiformes</i> , disculis copulationibus maioribus . . . . . <b>Thecarthra.</b><br><br><i>Tyroglyphiformes</i> , disculis copulationis nullis . . . . . <b>Sphaerogastra.</b> |
|--------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Foeminae abdomen postice inerme; maris penis brevissimus.

|                                                                                  |   |                                                                                                                    |
|----------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------|
| Pedes marium (heteromorphorum) tertii vel quarti paris valde ceteris crassiores. | { | Pedes quarti paris marium (heteromorph.) ceteris valde crassiores, ambulacro destituti . . . . . <b>Neumannia.</b> |
|----------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------|

|                                                     |   |                                                                                                                                                                                          |
|-----------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pedes omnes marium foeminarumque ambulatoris aucti. | { | Pedes quarti paris marium (heteromorph.) ceteris valde crassiores . . <b>Syringobia.</b><br><br>Pedes tertii paris marium (heteromorph.) ceteris valde crassiores . <b>Dermoglyphus.</b> |
|-----------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Genus *Cheylabis* Tr. et Megn. ex speciebus generis *Pterolichus* maribus omeomorphis secundum eundem Trouessart (in litteris) est constitutum, quare in tabulam suprascriptam includere nolui (Videas *Pt. pallidus*, *Pt. marinus*, etc).

SUBFAMILIA **Pterolichina.**

Sic in genera dividitur:

Pedes quarti paris in mari ceteris crassiores sed  
curtiores, ambulacris destituti . . . . . **Xoloptes.**

|                                                                                     |                                                                                                                                    |                                                                                                                            |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Pedes maris<br>(tertii quartive<br>paris) parum ab<br>iisdem foemi-<br>nae diversi. | Adsunt ma-<br>res polymorphi,<br>praecipue pro-<br>pter mandibu-<br>larum magnitu-<br>dine, interse-<br>et a foeminis<br>dispares. | Pedes quarti paris<br>in mari bene evoluti,<br>ceteris subsimiles . . . . . <b>Falciger.</b>                               |
|                                                                                     |                                                                                                                                    | Pedes quarti paris<br>in mari minimi, om-<br>nino inferi . . . . . <b>Bdellorhynchus.</b>                                  |
|                                                                                     | Mares. rostri<br>fabrica interse-<br>se et foeminis<br>suis subsimiles.                                                            | Pedes tertii quar-<br>tique paris laterali-<br>ter insiti . . . . . <b>Pterolichus.</b>                                    |
|                                                                                     |                                                                                                                                    | Pedes tertii quarti-<br>que paris omnino<br>inferi (subabdomi-<br>nales, sive hypoga-<br>strici) . . . . . <b>Freyana.</b> |

SUBFAMILIA **Analgesina.**

Sic in genera est dividenda:

Mas disculis copulationis evanidis (Pedibus 3<sup>i</sup> et 4<sup>i</sup>  
paris crassioribus) . . . . . **Nealges.**

|                                          |                                                                                               |                                                                                                                                          |                                                            |                                                  |                   |
|------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------|-------------------|
| Mas disculis copulationis perconspicuis. | Pedes quarti paris in mari crassiusculi, curtuli, ambulacro destituti . . . . .               |                                                                                                                                          | <b>Xolalges</b>                                            |                                                  |                   |
|                                          | Pedes primi et secundi paris tibia tarsoque haud dentibus praediti (in utroque sexu). . . . . |                                                                                                                                          | <b>Pteronyssus.</b>                                        |                                                  |                   |
|                                          | Pedes quarti paris ambulacrat                                                                 | Pedes primi secundi-que paris tibia tarsoque unidentatis, saepius femure inferne apophysi (olechrano) dentiformi aucti (in utroque sexu) | Pedes tertii paris maximi, quarti paris minimi (in mari).  | Pedes tertii paris ambulacro aucti . . . . .     | <b>Megninia</b>   |
|                                          |                                                                                               |                                                                                                                                          |                                                            | Pedes tertii paris ambulacro destituti . . . . . | <b>Analges.</b>   |
|                                          |                                                                                               |                                                                                                                                          | Pedes tertii quartique paris maiores (in mari) . . . , . . |                                                  | <b>Protalges.</b> |
|                                          |                                                                                               | Pedes quarti paris (in mari) tertii certe maiores . . . . .                                                                              |                                                            | <b>Analloptos.</b>                               |                   |

SUBFAMILIA **Proctophyllodina.**

Sic in genera subdividi potest:

|                                                                                                    |   |                                                                                                                        |                                                                                                      |
|----------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Pedes tertii vel quarti paris (in mari) ceteris crassiores,                                        | { | Pedes tertii paris (in mari) quartis multo robustiores . . . . .                                                       | <b>Allanalges.</b>                                                                                   |
|                                                                                                    |   | Pedes quarti paris (in mari) ceteris robustiores . . . . .                                                             | <b>Alloptes.</b>                                                                                     |
| Pedes omnes (in mari) interse- crassitie et longitudine subpa- res, iisdemque feminae sub- similes | { | Foeminae generantis abdomen postice tuberculis duobus maioribus, spinam cultri- formem longam geren- tibus prae- ditae | Abdomen maris postice constrictum, in appendicem uni vel bilobatam desinens . . . <b>Pterocolus.</b> |
|                                                                                                    |   | Abdomen maris postice truncatum.                                                                                       | Abdomen maris postice laminulis foliiformibus, expansis, auctum . <b>Proctophyllodinae.</b>          |
|                                                                                                    |   |                                                                                                                        | Abdomen maris postice tantum setis vel spinulis terminatum . . . <b>Pterodectes.</b>                 |
|                                                                                                    |   | Foeminae generantis abdomen postice tuberculis duobus parvulis, exillime setigeris terminatum . . . . .                | <b>Pterophagus.</b>                                                                                  |

GENUS I. **Syringobia** Trouessart et Neumann 1890.

Sic huius generis species dividantur:

Pedes quarti paris in mari calcari uno in articulo secundo aucti; pedes tertii paris abdominis extremitatem non attingentes (*Totanus*) **S. chelopus** Trouess. et Neum.

Pedes quarti paris in mari calcaribus duobus in articulo secundo aucti; pedes tertii paris toto tarso abdomen superantes (*Charadrius*) **S. tricalcarata** Trouess. et Neum.

Species ergo sunt:

*Syringobia chelopus* Trouess. et Neum. (super *Totanus calidris* Europa); *Syring. tricalcarata* Trouess. et Neum. (*Charadrius philippinus* — Europa)

## GENUS II. **Dermoglyphus** Mègnin 1877.

Species europeae huius generis sunt:

|                                                                                  |   |                                                              |                            |
|----------------------------------------------------------------------------------|---|--------------------------------------------------------------|----------------------------|
| Mares ultra<br>500 $\mu$ . long.<br>(circiter 650 $\mu$ .;<br>foem. 700 $\mu$ .) | { | Foeminae anus postice non in<br>mucronem productus . . . . . | <b>D. elongatus</b> Mègn.  |
|                                                                                  |   | Foeminae anus postice in mu-<br>cronem productus . . . . .   | <b>D. varians</b> Trouess. |

Mares non ultra 400  $\mu$ . longi (Foem. 450  $\mu$ .) **D. minor** (Nörner) Tr.

Ceterum species sunt:

*Dermoglyphus elongatus* Mègn. (super aves domesticas, Gallia, Germania); *Dermoglyphus minor* (Nörner) Trouess. (Germania); *Dermoglyphus varians* Trouess. (*Numida meleagris*, Gallia); *Dermoglyphus dipteron* Trouess. (*Tringa subarquata*, Gallia); *Dermoglyphus vermicularis* Trouess. et Neum. (*Élaena martinica*, America); *Dermoglyphus pachynemus* Trouess. et Mègnin (*Strutio Camelus*, Africa; *Rhea americana*, America); *Dermoglyphus pteronyssoides* Trouess. (*Gallinago nigripennis*, Africa, *Aulacops coeruleicinctus*, Nova Granata); *Dermoglyphus maior* Trouess. (*Euxotertes aquila*, *Phaetornis longirostris*, Nova Granata); *Dermoglyphus deformis* Trouess. (*Schizornis concolor*, Africa et (?) *Perdix rufa*, Europa).

Negligendus est:

*Dermoglyphus Mègninii* Berl. idest *Coleopterophagus Mègninii* Berl.

## GENUS III. **Neumannia** Trouessart et Neumann 1890.

Unica generis huius species extraeuropaea nota est sive:  
*Neumannia chelifer* Trouess. et Neum. (*Nothocercus Sal-laei*, Africa).

## GENUS IV. **Sphaerogastra** Trouess. 1897.

Generis huius unica species hucusque nota est *Sphaerogastra tylacodes* Trouess. (super *Tringa subarquata*, *Totanus glottis*, Gallia).



GENUS. V **Thecarthra** Trouessart 1897.

Genus hoc fere ex speciebus generis *Pterolichus*, maioris parasitismi causa sat peculiaribus characteribus distinctis constitutum est et cum *Pterolichis* iisdem omnino paralleliter in manipulis subdividi potest:

|                                                                          |   |                                                                                |                                  |
|--------------------------------------------------------------------------|---|--------------------------------------------------------------------------------|----------------------------------|
| Abdomen maris postice truncatum vel obtusum, tenuissime vel vix incisum. | { | Abdomen maris postice appendicibus foliiformibus hyalinis auctum . . . . .     | <b>Thecarthrae phyllophorae.</b> |
|                                                                          |   | Abdomen maris postice appendicibus hyalinis foliiformibus omnino destitutum. . | <b>Thecarthrae obtusae.</b>      |

Abdomen maris postice profunde incisum, bilobum . . . . . **Thecarthrae delibatae.**

Manipulus I (*Thecarthrae obtusae*)

Pedes omnes longissimi, quarti paris, in mari, articulis tribus postremis abdomen superantes . . . . . **T. longitarsa.** (Trouess. et Mègn.) Trouess.

|                                                                                    |   |                                              |                                                        |
|------------------------------------------------------------------------------------|---|----------------------------------------------|--------------------------------------------------------|
| Pedes omnes breves, postici vix abdominis apicem attingentes ( <b>T. simplex</b> ) | { | Rostrum mandibulaeque normalia . . . . .     | <b>T. simplex</b> Trouess.                             |
|                                                                                    |   | Rostrum mandibulaeque crassitie abnormia . . | <b>T.ar. simplex vtyro-Tro glyphina uess. et Neum.</b> |

## Manipulus 2 (*Thecarthrae delibatae*)

|                                                                  |   |                                                                           |                                                                                                 |
|------------------------------------------------------------------|---|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Lobuli abdominis maris laminula hyalina bene evoluta apice aucti | { | Laminula hyalina lata, pectiniformis, dentibus 8-9 apice incisa . . . . . | <b>T. Bouveti (Trouess. et Mègn.) Trouess.</b>                                                  |
|                                                                  |   | Lobuli abdominis maris intersese valde appressi, fere contigui .          | <b>T. Trouessarti Berl.</b>                                                                     |
|                                                                  | { | Laminula hyalina bi, vel tridenticulata                                   | Lobuli abdominis maris intersese valde discreti, interne appendicula falciformi aucti . . . . . |
|                                                                  |   |                                                                           | <b>T. interfolia (Trouess. et Mègn.) Trouess.</b>                                               |
| Lobuli abdominis maris laminula nulla hyalina apicali.           | { | Setae omnes lobulorum abdominis haud bifurcae. . . . .                    | <b>T. setigera (Trouess. et Mègn.) Trouess.</b>                                                 |
|                                                                  |   | Lobuli abdominis maris externe seta longa longe bifurca aucti             | <b>T. Theca (Trouess. et Mègn.) Trouess.</b>                                                    |

## Manipulus 3 (*Thecarthrae phyllophorae*).

Unica species in Europa comperta est *Thecarthra semaphora* Trouess.

Huius generis species hucusque notae, omnes in Europa collectae sunt:

*Tecarthra longitarsa* (Trouess. et Mègn.) Trouess. (*Pluvialis apricarius*, Gallia); *Tecarthra simplex* Trouess. (*Hydrochelidon fissipes*, Gallia); *Th. simplex* var. *tyroglyphina* (Trouess. et Neum.) Trouess. (*Hydrochelidon leucoptera*, Gallia); *Thecarthra semaphora* Trouess. (*Sterna hirundo*, Gallia); *Thecarthra Theca* (Trouess. et Mègn.) Trouess. (*Hydrochelidon fissipes*, Gallia); *Thecarthra setigera* (Trouess. et Mègn.) Trouess. (*Limosa rufa*, Gallia); *Thecarthra Bouveti* (Trouess. et Mègn.) Trouess. (*Charadrius hyaticula*, Gallia); *Thecarthra Trouessarti* Berl. (*Streptopelia collaris*, Gallia); *Thecarthra interfolia* (Trouess. et Mègn.) Trouess. (*Totanus glareola*, Gallia).

GENUS VI. **Anasicudion** Trouess. et Neum. 1888.

Unica huius generis nota est species exotica:

*Anasicudion Landoisii* (Buchb.) Trouess. et Neum. (super *Buceros rhinoceros*, Java et Sumatra).

GENUS VII. **Cheylabis** Trouess. et Mègn. 1885. (1)

Huius generis species hucusque compertae, exoticae sunt.

*Cheylabis fuscina* Trouess. (super *Megapodius jobiensis*, Nova Guinea); *Cheylabis latus* Trouess. (*Elanus melanopterus*, Europa, Africa); *Cheylabis praecox* Trouess. (*Asturina nitida*, America).

GENUS VIII. **Freyana** Haller 1877.

Genus hoc in subgenera divisum est, quae sunt:

|                                                              |                                                                    |                                                                                                                                                                                                                 |                                         |                      |                                                              |
|--------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------|--------------------------------------------------------------|
| Corpus orbiculare vel vix ovale . . . . .                    |                                                                    | <b>Freyana.</b>                                                                                                                                                                                                 |                                         |                      |                                                              |
| Corpus rectangulare, plus minusve elongatum                  | Abdomen in utroque sexu foliolis postice ornatum . . . . . , . . . | <b>Halleria.</b>                                                                                                                                                                                                |                                         |                      |                                                              |
|                                                              | Abdomen in utroque sexu, pilis simplicibus praeditum               | <table><tr><td>Maris abdomen postice bifidum . . . . .</td><td><b>Michaelichus.</b></td></tr><tr><td>Maris abdomen postice integrum vel leniter incisum . . . . .</td><td><b>Microspalax.</b></td></tr></table> | Maris abdomen postice bifidum . . . . . | <b>Michaelichus.</b> | Maris abdomen postice integrum vel leniter incisum . . . . . |
| Maris abdomen postice bifidum . . . . .                      | <b>Michaelichus.</b>                                               |                                                                                                                                                                                                                 |                                         |                      |                                                              |
| Maris abdomen postice integrum vel leniter incisum . . . . . | <b>Microspalax.</b>                                                |                                                                                                                                                                                                                 |                                         |                      |                                                              |

(1) Videas quae de hoc genere dixi ad pag. 38, tamen species in hoc genere inclusas, in quo generis *Pterolichus* manipulo sint introducendas mihi hucusque haud notum est, qua re sub nomine *Cheylabis* hic citantur.

## SUBGENUS I. **Freyana.**

Subgeneris huius haec sunt species europeae, in Italia inventae vel inquirendae.

Pedes longi, cylindrici, graciles; mas abdomine postice integro, vel vix inciso (*Ciconia alba*; *C. nigra*) . . . . . **F. pelargica** Tr. et Mègn.

Appendiculae abdominales posticae, styliformes, symplices (*Anser*, *Cygnus*) . . . . . **F. anserina** Tr. et Mègn.

Mas quadrato—rectangularis, laminula lateralis hyalina, postice dilatata, epimeris in medio confluentibus spatiumque sternale polygonum, postice, apertum circumscriptentibus; foliolae anales pediformes (*Anas boschas*, *Querquedula*, *Oidemia*, *Fuligula*) . . . . . **F. anatina** (Koch,) Hall. *Typica*.

Mas rectangularis, elongatulus; laminula hyalina lateralis stricta; epimera non confluentia, femminiformis (*Anas*, *Querquedula*, *Mareca*) . . . . . **F. anatina** var. *simplex* Tr. et Mègn.

Mas lateribus rotundatis, laminula hyalina laterali mediocri; epimeris confluentibus, partim simul concretis, spatium sternale rhombicum occludentibus; pilo abdominali quarto, ensiformi (*Mergus*, *Oidemia*, *Fuligula*) . . . . . **F. anatina** var. *armata* Tr. et Mègn.

Mas breviter ovatus, subrotundus, laminula hyalina laterali latiori, antèrius magis quam posterius dilatata; epimera confluentia et in medio simul concreta, spatium sternale ferri hastae instar occludentia, quartus pilus abdominalis curtus latusque, foliiformis. (*Chauliodus*, *Tadorna*, *Querquedula*) . . . . . **F. anatina** *largifolia* Tr. et Mègn.

Pedes crassiusculi, breves; mas abdomine postice rotundato vel recte truncato.

Appendiculae abdominales posticae foliiformes, latiusculae. **F. anatina.**



**Excepta** *Freyana anatina* (Koch) Hall., quae in Italia est inventa, ceterae species hucusque tantum extra Italiam sunt collectae; sive:

*Freyana anatina* var. *armata* Trouess. et Mègn. (super *Mergus*, *Oidemia*, *Fuligula*); *Freyana analina* var. *largifolia* Trouess. et Mègn. (*Chauliodus*, *Tadorna* *Querquedula*); *Freyana analina* var. *nettapina* Trouess. et Mègn. (*Nettapus auritus*, Madagascar); *Freyana anatina* var. *simplex* Trouess. et Mègn. (*Anas*, *Querquedula*, *Mareca*, Europa); *Freyana anserina* Trouess. et Mègn. (*Anser*, *Cygnus*, Europa); *Freyana choriopoides* Trouess. et Mègn. (*Bostrichia carunculata*, Africa); *Freyana gracilipes* Trouess. et Mègn. (*Grus Antigone*, Asia; *Nycteria senegalensis*, Africa); *Freyana Halleri* Trouess. et Mègn. (*Platalea ajaja*, America); *Freyana horrida* Trouess. et Mègn. (*Ibis rubra*, America); *Freyana Leclerci* Trouess. (*Lobivanellus senegalus*, Senegal; *L. indicus*, Cochinchina); *Freyana marginata* Trouess. (*Rhyncops flavirostris*, Africa); *Freyana marginata* var. *grandiloba* Trouess. et Neum. (*Rhyncops atra*, America); *Freyana oblonga* Trouess. et Neum. (*Ibis bagedash*, Africa); *Freyana ovalis* Hall. (*Meleagris ocellata*, America); *Freyana pectinata* Trouess. (*Scopus umbretta*, Africa); *Freyana pelargica* Trouess. et Mègn. (*Ciconia alba*, *C. nigra*, Europa; *C. maguari*, America); *Freyana tarandus* Trouess. et Neum. (*Ibis melanocephalus*, India; *I. strictipennis* Australia; *I. melanopsis*, America).

## SUBGENUS II. **Halleria** Trouess. et Mègn.

Species huius subgeneris haec sunt:

*F. (Halleria) hirsutirostris* Trouess. et Mègn. (*Phoenicopterus antiquorum*, Europa, Africa). *F. (Halleria) ceratorhina* Trouess. (*Tantalus ibis*, Africa);

SUBGENUS III. **Michaelichus** Trouess. et Mègn.

Species duae Europae sunt:

Corpus latiusculum, pedes antici ceteris maiores, tibia inferne (in mari) calcari articulo praedita, abdomine maris postice inciso, in media incisura laminula pectinata late utrinque marginato . . . . . **F. (Michael.) Caputmedusae** Trouess.

Corpus elongatulum, pedes secundi paris ceteris longiores, tibiis omnibus inermibus, abdomine maris postice inciso, haud membranula pectinata aucto . . . . . **F. (Michael.) heteropus** (Mich.) Tr. et Mègn.

Super hospites sequentes sunt inventae:

*F. (Michaelichus) Caput-Medusae* Trouess. (super *Tula bassana* aliisque speciebus Europae, Americae, etc.) *F. (Michaelichus) heteropus* (Mich.) Trouess. et Mègn. (*Phalacrocorax cristatus*, Europa).

SUBGENUS IV. **Microspalax** Trouess. et Mègn.

Huius subgeneris species duae in Italia sunt inquirendae, sive:

Pedes 2<sup>i</sup> paris articulo tantum secundo ad marginem externum inflato (*Meleagris gallopavo*) . . . . . **F. (Microspalax) Chanay** Trouess. et Mègn.

|                                                                                                                                          |   |                                                                                      |                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Pedes 2 <sup>i</sup> paris articulis secundo et tertio ad marginem externum in laminulas subhyalinas dilatatis ( <b>F. M. manicata</b> ) | { | Abdomine maris postice late sinuato, incavato ( <i>Puffinus cinereus</i> ) . . . . . | <b>F. (Microspalax) manicata</b> Tr. et Mègn. ( <i>typica</i> ) |
|                                                                                                                                          |   | Abdomine maris postice recte truncato ( <i>Puffinus obscurus</i> ) . . . . .         |                                                                 |

**F. Micros. manicata var. brevipes** Tr. et Mègn.

Species autem huius subgeneris sunt:

*F. (Microspalax) Chanay* Trouess. et Mègn. (*Meleagris gallopavo*, Europa); *F. (Microspalax) manicata*, Trouess. et Mègn.

(*Puffinus cinereus*, Europa); *F. (Micr.) manicata* var. *brevipes*, Trouess. et Mègn. (*Puffinus obscurus*, Europa); *Fr. (Micr.)* var. *maior*, Trouess. et Neum. (*Daption capensis*, Africa).

*Freyana (Microspalax) gigas* Trouess. (*Diomedea brachyura*, Oceanum Pacificum).

## GENUS IX. **Pterolichus** Robin 1877.

Genus hoc specierum ditissimum in subgenera est dividendum quae sunt:

Pedes subventrales, graciles; corpus breve, subovale vel subrectangulum; freyaniformes (*Rapaces*). . . . . **Orameria Hall.**

Dymorphismus sexualis propter pedum magnitudinem haud manifestus, sive pedes in utroque sexu subsimiles . . . . . **Pterolichus Rob. (s. s.)**

Maris pedes primi paris valde ceteris robustiores, tertii et quarti minores (*Eucetidae*). **Oustaletia Trouessart et Mègn.**

Pedes omnino marginales.

Dymorphismum sexuale etiam in pedum magnitudine manifestissimum.

Maris (et foeminae) pedes primi et secundi paris haud ceteros magnitudine superantes.

Maris pedes tertii et quarti paris, foeminarum iisdem pedibus crassiore (*Psittaci, Casuarinus*)

**Protolichus Trouess. et Mègn.**

Maris pedes quarti paris ceteris robustiores . .

**Pseudalloptes Trouess. et Mègn.**

SUBGENUS I. **Crameria** Hall.

Huius subgeneris, species unica *Pterolichus* (*Crameria*) *lunulatus* Haller, varietates quasdam praebet quae sunt.

Maris abdomen postice strixiusculum angulis subrotundatis, vix vel non prominentibus

(*Otus*, *Strix*) . . . . . Pt. (Cram.) *lunulatus*  
var. *Lyra* Can.

Dentes abdomen maris postice desinentes, validiores; nulla laminula hyalina inter dentes supadictos, in margine postico abdominis conspicua (*Bubo*, *Scops*, *Syrnium*, *Athene*)

Pt. (Cram.) *lunulatus*  
Hall. (typicus)

Maris abdomen postice dilatatum, recte truncatum, angulis indentem acute prominentibus.

Dentes abdomen maris postice desinentes, mediocres, vel evanescentes, margo posticus abdominis utrinque laminula stricta, hyalina ad originem setularum (trium) disposita, bene praeditum. (*Bubo*, *Surnia*, *Nyctale*, *Speotyto*, *Strix*) . . . . .

Pt. (Cram.) *lunulatus*  
var. *maior* Hall.

Varietates istae cuius foeminae inter sese similiores sunt, ceterum, maris characteribus concurrunt propter plures formas intermedias. Ergo huius subgeneris species sunt:

*Pter.* (*Crameria*) *lunulatus* Haller (*Bubo maximus*, *Scops Zorca*, *Syrnium aluco*, *Athene noctua* — Europa); *Pter.* (Cram.) *lunulatus* var. *Lyra* Canestrini (*Otus vulgaris*, *Otus brachyotus*, *Strix flammea* — Europa); *Pter.* (*Crameria*) *lunulatus* var. *maior* Haller (*Bubo maximus*, *Surnia ulula*, *Nyctale funerea*, *Speotyto hypogoea*, *Strix flammea*, *Falco Eleonoraë*; — Europa et extra Europam).



SUBGENUS II. **Pterolichus** Robin.

(sensu stricto, secundum Trouessart)

Subgenus hoc in manipulos dividatur. Manipuli sic disponantur.

|                                                                                                                                                 |                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                 | Abdomen maris postice truncatum vel leniter incisum; corpus sat curtulum. ( <i>Aves variae</i> )                                                   | <b>Pterolichi obtusi.</b>                                                                                                                                                                                                                                                                                                                 |
| Abdomen maris postice obtusum vel plus minusve incisum, vel bilobum, lobulorum apice non in appendices cultriformes aut securiformes productum. | Abdomen maris pilis simplicibus terminatum.                                                                                                        | <p>Maris abdomen postice in appendicem semilunarem terminatum; pedes secundi paris, longitudine par primum superantes (<i>Psittaci</i>) . . . . . <b>Pt. lunulati.</b></p> <p>Maris abdomen postice plus minusve profunde incisum, bicornae, pedes secundi paris primis curtiores (<i>Aves variae</i>) . . . . . <b>Pt. dellbati.</b></p> |
|                                                                                                                                                 | Abdomen maris postice profundesinuatum, bilobum vel lunuliforme.                                                                                   |                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                 | Abdomen maris appendicibus laminiformibus plus minusve dilatatis terminatum.                                                                       | <p>Curtuli; maris abdomine obtuso vel vix sinuato, appendicibus foliiformibus terminato (<i>Psittaci</i>) . . . . . <b>Pt. phyllophori.</b></p> <p>Maris abdomen postice plus minusve incisum, bicornae, laminulis foliiformibus terminatum (<i>Aves variae</i>) . . . . . <b>Pt. palmigeri.</b></p>                                      |
|                                                                                                                                                 | Abdomen maris incisum vel bilobum, lobulorum apice in apophyses cultriformes vel securiformes productum. ( <i>Charadrius, Cypselus</i> ) . . . . . | <b>Pt. cultrigeri.</b>                                                                                                                                                                                                                                                                                                                    |



Species autem ex manipulo hoc quae hucusque dignoscuntur etiã extraeuropeae sunt:

*Ptorolichus Martini* Trouess. et Mègn. (*Sterna hirundo*; Europa); *Pterol. Squatarolae* Canestrini super *Squatarola helvetica*, *Pluvialis varius*, *Pt. malanogaster*, *Charadrius pluvialis* etc.; Europa et extraeuropam); *Pterol. Caradrii* Can. (super *Recurvirostra avocetta*; *Himantopus melanopterus*, *Haematopus ostralegus*, *H. niger*, *Charadrius hiaticula*, *Ch. cantianus*, *Ch. minor*, *Actitis hypoleucos*, *Gallinago minima*; Europa et extr.); *Pterol. minor* Trouess. et Mègn. (super *Falco subbuteo*; Europa); *Pterol. obtusus* Robin (super *Perdix rubra*, *Sterna cinerea*, *St. damascena* etc., *Phasianus*, *Euplocomus*, *Diardigallus praelatus*, *Gallus* etc.; Europa, Asia); *Pterol. Ardeae* Can. (super *Ardea minuta*, *A. stellaris* *A. alba*, *Nycticorax griseus*, *N. caledonicus* etc.; Europa et extraeur.); *Pterol. parallelus* Trouess. (super *Scops Zorca*; Europa); *Pterol. eventratus* Trouess. et Mègn. (super *Glaucidium passerinum*; Europa) *Pterolichus crassus* Trouess. et Mègn. (super *Buceros coronatus*; Asia); *Pterol. cataphractus* Trouess. et Mègn. (super *Cerionis satyra*; Asia et Calornis *chalyboea*, *C. cantor*; Taprobana); *Pterol. decoratus* Trouess. et Mègn. (super *Rollulus* [*Cryptonyx*] *cristatus*; Java); *Pterol. pustulatus* Trouess. et Mègn. (super *Crax alector*; America); *Pterol. ornatus* Trouess. et Mègn. (super plures *Psittacos* Australiae, Asiae etc.) *Pterol. longiventer* Trouess. et Mègn. (super *Syrnium nebulosum*; America) *Pterol. marginatus* Trouess. (super *Ibis hagedash*; Africa); *Pterol. trilobus* Trouess. (super *Megapodius jobiensis*; Nova Guinea); *Pterol. parallelilobus* Trouess. (super *Corythaix purpurea*; Africa). *Pterol. anomalus* Trouess. (super *Bostrichia carunculata*; Africa); *Pterol. corystes* Trouess. (*Graculus carunculatus*; America); *Pterol. coccyger* Trouess. (super *Aramus scolopaceus*; America); *Pterol. corniger* Trouess. (super *Psophia agami*; America); *Pterol. navicula* Trouess. (super *Megapodius jobiensis*, *M. Freycineti*, *Acipodius Bruijnii*; Nova Guinea).

## MANIPULUS II. *Pterolichi lunulati*.

Species Pterolichorum manipuli huius, omnes exoticae sunt, videas enim:

*Pterolichus Lunula Robin* (super *Melopsittacus undulatus*; Australia); *Pterolichus chiragricus Trouess.* (super *Pezophorus formosus*; Nova Zelandia); *Pterolichus affinis Troues.* (super *Platyceros flaveolus* et *Pl. Pennatii*; Australia).

## MANIPULUS III. *Pterolichi delibati*.

Sic manipulus iste in sectiones dividatur: (1)

Epimera antica bene intersese discreta, nec contigua **A.**

Epimera antica intersese bene concreta vel saltem  
in medio contigua. . . . . **B.**

---

(1) Secundum ordinem naturalem autem, quem sequitur Cl. Trouesart, sed mihi, ad tabulam dychotomicam conficiendam minus utilis, species huius manipuli sic sunt disponendae:

Lobuli abdominis in mari trigoni, apice non membranula hyalina marginati, ad laterem interiorem spinula transverse directa armati . . . . .  **Sectio A.**

Lobuli abdominis in mari trigoni, apice membranula hyalina varie conformata marginati . . . . .  **Sectio B.**

Lobuli maris rotundati vel elliptici, rarius truncati, membranula hyalina destituti, maribus generis *Pterodecetes* abdominis fabrica subsimiles . . . . .  **Sectio C.**

Abdomen in utroque sexu profunde incisum, bilobum  **Sectio D.**



## Pterolichorum delibatorum Sectio A.

(Epimeris anticis interse bene discretis nec contiguis)

Haec sunt species europeae huius sectionis:

|                                                                                                   |                                                                                                                                                                                   |                                                                                           |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Abdominis maris lobuli<br>(membranula hyalina apice<br>marginati (ex sectione B<br>Trouessartii). | Laminula lobulorum apicalis dentibus duobus acutis, lacinia autem<br>rotundata terminata ( <i>Lotanus</i> , <i>Machetes</i> , <i>Tringa</i> , <i>Limosa</i> , <i>Phalaropus</i> ) | Pt. Totani Can.                                                                           |
|                                                                                                   | Laminula lobulorum apicalis quinque-dentata ( <i>Numenius phaeopus</i> )                                                                                                          | Pt. Numenli Can.                                                                          |
| Epimera basi valde incrassata ut in speciebus manipuli <i>Obtusorum</i> . . . . .                 |                                                                                                                                                                                   | Pt. marinus Troues.                                                                       |
|                                                                                                   | Pedes quarti paris abdominis apicem (in mari<br>saltem summo tarso superantes ( <i>Rapaces</i> ))                                                                                 | Mas 420 $\mu$ ., foem. 459 $\mu$ . . Pt. Nisi Can.                                        |
|                                                                                                   |                                                                                                                                                                                   | Mas 270 $\mu$ ., foem. 350 $\mu$ . Pt. intermedius<br>Trouess. et Mègn.                   |
| Epimera basi valde incrassata, li-<br>nearia.                                                     | In quoque abdominis maris lobulo setula una ceteris valde<br>longior adest ( <i>Corvidae</i> et <i>Vulturidae</i> ) . . . . .                                                     | Pt. delibatus Bob.                                                                        |
|                                                                                                   | Setulae omnes<br>apicales ( <i>Grallae</i> ).                                                                                                                                     | Lobuli abdominales maris<br>breviores (350 $\mu$ .) . . . Pt. Oionlae Can. et<br>Berl.    |
|                                                                                                   | Pedes quarti<br>paris in mari,<br>abdominis a-<br>picem non at-<br>tingentes                                                                                                      | Lobuli abdominales maris<br>sat longi (510 $\mu$ .) . . . Pt. Otidis Troues. et<br>Mègn.  |
|                                                                                                   | In quoque<br>maris lobulo<br>setulae duae<br>ceteris valde<br>longiores<br>stant.                                                                                                 | Humeri setula et spinula<br>aucti . . . . . Pt. Onculi Troues.<br>et Mègn.                |
|                                                                                                   | Setulae tres<br>tantum apicales                                                                                                                                                   | Humeri setulis binis exilibus<br>praediti . . . . . Pt. Urogalli (Nörner)<br>Tr. et Mègn. |

Abdominis maris lobuli membranula nulla apicali (ex  
sectione A Trouessartii.)

## Pterolichorum delibatorum *Sectio B.*

(epimeris anticis saltem apice intersece concretis)

|                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lobuli abdominales maris laminula apicali quin-<br>quedenticulata, hyalina, marginati ( <i>Numenius</i> ) | Pt. Ninnii Can.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Lobuli abdominales maris apice laminula hyalina subnulla certe haud denticulata aucti.                    | <div style="display: flex; align-items: center;"> <div style="flex: 1;">           Epimera antica in V concreta<br/>(species in serie A incurrens) (<i>Oedicnemus</i>) . . . . .         </div> <div style="flex: 1; text-align: right;">           Pt. pallidus Troues.<br/>et Mègn.         </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Lobuli abdominales maris apice laminula hyalina subnulla certe haud denticulata aucti.                    | <div style="display: flex; align-items: center;"> <div style="flex: 1;">           Epimera antica in Y concreta.         </div> <div style="flex: 1;"> <div style="display: flex; align-items: center;"> <div style="flex: 1;">           Humeri setis simplicibus duabus ex quibus alia curtior aucti (<i>Limosa etc.</i>)         </div> <div style="flex: 1; text-align: right;">           Pt. Limosae Can. et var.         </div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="flex: 1;">           Humeri spinula valida et seta longa armati (<i>Haematopus etc.</i>) . . .         </div> <div style="flex: 1; text-align: right;">           Pt. Rhebergi Can. et Berl. et var.         </div> </div> </div> </div> |
| Lobuli abdominales maris stricta laminula hyalina undique marginati                                       | <div style="display: flex; align-items: center;"> <div style="flex: 1;">           Humeri setulis binis ex quibus alia minima exilior, ornati (<i>Fulica etc.</i>) . . . . .         </div> <div style="flex: 1; text-align: right;">           Pt. Fulicae Tr. et Mègn.         </div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="flex: 1;">           Humeri spinula brevi, validiori, setulaque longiori aucti. . . .         </div> <div style="flex: 1; text-align: right;">           Pt. Porzanae Can.         </div> </div>                                                                                                                                                                                        |
| Lobuli abdominales maris rotundati, obtusi (mares pterodectiformes).                                      | <div style="display: flex; align-items: center;"> <div style="flex: 1;">           Mas pedibus quarti paris apicem abdominis summo tarso attingentes; penis minimus inter tertias coxas insitus; color testaceus; derma scutulorum tenuissime punctulatum . . . . .         </div> <div style="flex: 1; text-align: right;">           Pt. rallorum Rob.         </div> </div>                                                                                                                                                                                                                                                                                                                                                                                         |
| Lobuli abdominales nulla membrana hyalina marginati.                                                      | <div style="display: flex; align-items: center;"> <div style="flex: 1;">           Mas pedibus quarti paris apicem abdominis non attingentes, curtiores; penis maior, styliformis, post quartas coxas insitus, retrorsus directus; color laete rubidus; derma scutulorum, crasse areolatum         </div> <div style="flex: 1; text-align: right;">           Pt. proctogamus Tr. et Mègn.         </div> </div>                                                                                                                                                                                                                                                                                                                                                       |

Manipuli huius species hucusque notae sunt:

*Pterolichus delibatus* Robin (super *Corvidae*, *Vulturidae* etc.; Europa et extra Europ.); *Pterol. Urogalli* Nörner (*Tetrao urogallus*; Europa); *Pterol. Nisi Canestrini* (*Falconidae*; Europa, Asia); *Pterol. intermedius* Trouess. et Megn. (*Falco*, *Circus*; Europa); *Pterol. Otidis* Trouess. et Mègn. (*Otis houbara*; Africa, Europa); *Pterol. Ciconiae* Can. et Berl. (*Ciconia alba*, Europa); *Pterol. Cuculi* Trouess. et Megn. (*Cuculidae*, *Merops*; Europa, America); *Pterol. marinus* Trouess. (*Larus argentatus*; Europa); *Pterol. Ninnii* Can. (*Numenius*; Europa); *Pterol. Limosae* Can. (*Limosa*, *Totanus*; Europa), *Pterol. Limosae* var. *mucronatus* Trouess. et Megn. (*Totanus*; Europa); *Pterol. Limosae* var. *selemirus* Trouess. et Mègn. (*Totanus*, *Limosa*; Europa), *Pterol. pallidus* Trouess. et Mègn. (*Oedinemus crepitans*; Europa); *Pterol. Totani* Can. (*Totanus*, *Machetes*, *Tringa*, *Phalaropus*, *Limosa*; Europa); *Pterol. Numenii* Can. (*Numenius phaeopus*; Europa); *Pterol. rallorum* Rob. (*Ortygometra crex*; Europa); *Pterol. Porzanae* Can. (*Porzana maruetta*, *P. pusilla*; Europa); *Pterol. Fulicae* Trouess. et Mègn. (*Fulica atra*; Europa); *Pterol. proctogamus* Trouess. et Mègn. (*Fulica*, *Porphyrio hyacinthinus*, *Hypotaenidia philippinensis*; Europa; et extra eur.); *Pterol. Rehbergi* Can. et Berl. (*Haematopus ostralegus*, *Recurvirostra avocetta*; Europa); *Pterol. Rehbergi* var. *gracilis* Trouess. et Megn. (*Himantopus melanopterus*; Europa).

*Pterolichus Strutionis* Trouess. et Mègn. (*Strutio Camelus*; Africa, *Rhea americana*; America); *Pterol. Pyroderi* Trouess. et Mègn. (*Pyroderus scutatus*; America); *Pterol. biemarginatus* Trouess. et Mègn. (*Capito auratus*, *Trogon curucui*; America); *Pterol. rampastinus* Trouess. et Mègn. (*Pteroglossus aracari*, *Ramphastos dicolorus*, *Aulacorhynchus coeruleogularis*; America); *Pterol. phylloproctus* Trouess. et Mègn. (*Haliaetus leucogaster*; India et Cina); *Pterol. phylloproctus* var. *minor* Trouess. et Mègn. (*Haliastur indus* var. *girrenera*; Australia); *Pterol. Hirundo* Trouess. et Mègn. (*Harpya destructor*; Guyana); *Pterol. circiniger* Trouess. et Mègn. (*Buceros plicatus*, *B. sulcatus*; Malesia); *Pterol. attenuatus* Trouess. et Mègn. (*Buceros*; Malesia); *Pterol. ogivalis* Trouess. et Mègn. (*Buceros plicatus*; Malesia);

*Pterol. Parrae* Trouess. et Mègn. (*Hydrophasianus chirurgus*; India); *Pterolichus rubidus* Trouess. (*Diomedea chlororhyncha*; Oceani australis).

#### MANIPULUS IV. *Pterolichi phyllophori*.

Species *Pterolichorum europaeae* inter *phyllophoros* non sunt, quia omnes extra Europam sunt collectae; sive:

*Pterolichus Canestrinii* Trouessart et Mègnin (super *Arara macao*, *A. canga*, *A. severus*; America); *Pterol. denticulatus* Tr. et Mègn. (super *Conurus cruentatus*; America); *Pt. denticulatus* var. *inermis* Trouess. et Mègn. (super *Caica leucogastra*; America); *Pt. denticulatus* var. *cribriformis* Trouess. et Mègn. (super *Psittaculus passerinus*; America); *Pterol. hemiphyllus* Trouess. et Mègn. (super *Psittacula lunulata*; Manidae); *Pt. hemiphyllus* var. *microphyllus* Trouess. et Mègn. (super *Amazona melanocephala*; America); *Pt. hemiphyllus* var. *porrectus* Trouess. et Mègn. (super *Amazona menstrua*; America); *Pterol. hastifolia* Trouess. et Mègn. (super *Conurus smaragdinus*; America).



MANIPULUS V. *Pterolichi palmigeri*.

Sic huius manipuli species dividantur:

|                                                                             |                                                                                                    |                                                                                                                                                                    |                                                                                             |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Foliolae in lobulis abdominis masculini insitae tantum duae, (utrinque una) | Lobulorum margo exterior setulis tribus perconspicuis ornatus ( <i>Phoenicopterus antiquorum</i> ) |                                                                                                                                                                    | Pt. <i>Phoenicopteri</i> Mégn. et Trouess.                                                  |
|                                                                             | Lobulorum margo exterior seta longa aliaque minori, spiniformi ornatus                             | Mas ad 400 $\mu$ . long. ( <i>Podiceps minor</i> ) . . . . .<br>Mas ad 450 $\mu$ . long. ( <i>Podiceps cristatus</i> , <i>Colymbus septentrionalis</i> ) . . . . . | Pt. <i>Colymbi</i> Can. ( <i>typicus</i> )<br>Pt. <i>Colymbi</i> var. <i>maior</i> Trouess. |

Foliolae, late cultriformes numero sex (utrinque tres) (*Vanellus cristatus*) . . . . . Pt. *Vanelli* Can.

Adest, in mari, vitta durior chitinea ad ventrem supra lobulos transversa (*Totanus*, *Tringa*, *Strepsilas*) . . . . . Pt. *Buchholzi* var. *fasciger* Tr. et Mégn.

Foliolae in lobulis abdominis masculini quatuor vel sex numero.

Foliolae cultriformes numero quatuor (utrinque duae) (Pt. *Buchholzi*).

Vitta chitinea super lobulos nulla.

Foliolae lobulorum vere cultriformes, strictiores, interse fabrica similes (*Limosa*, (*Squatarola*) . . . . . Pt. *Buchholzi* Can. (*typicus*)

Foliolae dispares, interior late cultriformis, exterior spathuliformis (*Tringa subarquata*) . . . . . Pt. *Buchholzi* var. *securicatus* Tr. et Mégn.

Foliolae subsimiles, lanceolatae (*Tringa cinclus*) . . . . . Pt. *Buchholzi* var. *hastiger* Tr. et Mégn.

Species hucusque notae ex manipulo hoc sunt:

*Pterolichus Phoenicopteri* Trouess. et Mègn. (super *Phoenicopterus antiquorum*; Europa); *Pterolichus Buchholzi* Can. (*Limosa melanura*, *Squatarola helvetica*; Europa); *Pterol. Buchholzi* var. *bastiger* Trouess. et Mègn. (*Tringla cinclus*; Europa; *Cbettusia cinerea*; Bengala; ) *Pterol. Buchholzi* var. *fasciger* Trouess. et Mègn. (*Totanus calidris*, *Tringa canutus*, *Strepsilas collaris*; Europa); *Pterol. Buchholzi* var. *securicatus* Trouess. et Mègn. (*Tringa subarquata*; Europa); *Pterol. Colymbi* Can. (*Podiceps minor*; Europa); *Pterol. Colymbi* var. *maior* Trouess. et Mègn. (*Podiceps cristatus*, *Colymbus septentrionalis*; Europa); *Pterol. Vanelli* Can. (*Vanellus cristatus*; Europa).

*Pterolichus micropyllus* Trouess. et Mègn. (super *Torythaix meriani*; Africa); *Pterol. vexillarius* Trouess. et Mègn. (super *Buceros rhinoceros*, *Hydrocissa albirostris*, *Rhinoplax vigil*, *Anorhinus galeritus* etc; India etc.); *Pterol. vexillarius* var. *minor* Trouess et Mègn. (*Hydrocorax planicornis*; Philippinae insulae); *Pterol. vexillarius* var. *homophillus* Trouess. et Mègn. (*Anorhinus galeritus* aliaeque *Bucerotidae*; Malacca); *Pterol. vexillarius* var. *minutus* Trouess. et Mègn. (*Tochus melanoleuchus*, *T. erythrorynchus*; Africa).

## MANIPULUS VI. *Pterolichi cultrigeri*.

Species huius manipuli europeae haec sunt:

|                                                        |   |                                                                                                   |                                            |
|--------------------------------------------------------|---|---------------------------------------------------------------------------------------------------|--------------------------------------------|
| Epimera antica<br>intersese omnino<br>discreta.        | { | Maris abdominis incisura late<br>rectangula ( <i>Cypselus melba</i> ) .                           | <b>Pt. varians Trouess.</b>                |
|                                                        |   | Maris abdominis incisura ova-<br>ta, antèrius acuta ( <i>Cypselus<br/>apus</i> ) . . . . .        | <b>Pt. securiger Robin.</b>                |
| Epimera antica<br>intersese in V vel<br>in Y concreta. | { | Pedes quarti paris in mari<br>apicem abdominis superantes<br>( <i>Cypselus apus</i> ) . . . . .   | <b>Pt. cultrifer Rob.</b>                  |
|                                                        |   | Pedes quarti paris in mari<br>apicem abdominis non attingen-<br>tes ( <i>Charadrius minor</i> ) . | <b>Pt. xiphiurus Trouess.<br/>et Mègn.</b> |

Species sunt ergo hucusque notae:

*Pterolichus xiphiurus* Trouess. et Mègn. (super *Charadrius minor*; Europa); *Pterol. cultrifer* Robin (*Cypselus apus*, *C. alpinus*; Europa); *Pterol. securiger* Robin (*Cypselus apus*; Europa), *Pterol. varians* Trouess. (*Cypselus melba*; Europa).

### SUBGENUS **Protolichus.**

Continet species extraeuropeas quae sunt:

*Pterolichus* (*Protolichus*) *brachiatus* Trouess. et Mègn. (super *Lorius domicella*, *Loriculus Sclateri*, *Trichoglossus haematopus* etc; Molucche, Nova Guinea); *Pterol.* (*Protol.*) *brachiatus* var. *crassior* Trouess. et Mègn. (*Trichoglossus multicolor*, *Nanodes australis*, *Loriculus Sclateri*; Australia, Nova Guinea etc); *Pterol.* (*Protol.*) *casuarinus* Trouess. et Mègn. (*Casuarus uniappendiculatus*; Insula Salwatty, Nova Guinea); *Pterol.* (*Protol.*) *euricnemis* Trouess. et Mègn. (*Arara macao*; Guyana; *Conurus smaragdinus*; Patagonia); *Pterol.* (*Protol.*) *falculiger* Trouess. et Mègn. (*Nanodes australis*; Australia); *Pterol.* (*Protol.*) *furcatus* Trouess. (*Coracopsis*; Madagascar).

SUBGENUS **Pseudalloptes.**

Sic subgenus hoc in sectiones (secundum Trouessart) dividatur bene:

|                                                                                              |                                                                                                 |                                                                                                                        |
|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Abdomen maris postice integrum vel leniter bilobum ut in<br><i>Pterol. obtusis</i> . . . . . |                                                                                                 | <b>Pseudalloptes obtusi.</b>                                                                                           |
| Abdomen maris postice bilobum vel in mucronem attenuatum.                                    | Lobuli abdominis in mari in laminulas hyalinas desinentes, ut in <i>Pterolichis cultrigeris</i> | <b>Pseudall. cultrigeri.</b>                                                                                           |
|                                                                                              |                                                                                                 | Abdomen maris postice profunde incisum, lobulis trigonis terminatum ut in <i>Pterol. delibatis</i> . . . . .           |
|                                                                                              |                                                                                                 | <b>Pseudall. delibati.</b>                                                                                             |
| Lobuli non in laminulam hyalinam desinentes.                                                 |                                                                                                 | Abdomen maris postice attenuatum, in lobulis intersece valde approximatis terminatum, ut in genere <i>Pterocolus</i> . |
|                                                                                              |                                                                                                 | <b>Pseudall. pterocoluri.</b>                                                                                          |

MANIPULUS I. *Pterolichi* (*Pseudalloptes*) *obtusis*.

In hac tantum sectione huius subgeneris species in Europa inquirendae sunt, sive:

|                                                                                           |                                                                                                     |                                                                                  |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|                                                                                           | Lobulus abdominis maris quisque setulis quatuor simplicibus terminatum. . . . .                     | <b>Pt. (Pseudall.) aquilinus Trouess. et Mègn.</b>                               |
| Maris abdomen postice membranulis hyalinis rotundatis terminatum.                         | Lobulus quisque abdominalis spinis duabus setisque simplicibus vel setis tantum simplicibus auctus. | Lobulus quisque setis simplicibus duabus spinisque duabus brevibus ornatum . . . |
|                                                                                           |                                                                                                     | <b>Pt. (Pseudall.) microdiscus Trouess.</b>                                      |
|                                                                                           |                                                                                                     | Lobulus quisque (vix manifestus) setis duabus simplicibus praeditus . . . . .    |
|                                                                                           |                                                                                                     | <b>Pt. (Pseudall.) didactylus Tr. et Mègn. (Berl.)</b>                           |
| Maris abdomen membranulis hyalinis nullis, tantum spinis vel pilis simplicibus praeditum. | Lobulus quisque abdominis maris spinis duabus armatus.                                              | Lobulus quisque abdominis maris spina unica auctus . . . . .                     |
|                                                                                           |                                                                                                     | <b>Pt. (Pseudall.) bimucronatus Tr. et Mègn.</b>                                 |
|                                                                                           |                                                                                                     | Abdomen maris profunde incisum . . . . .                                         |
|                                                                                           |                                                                                                     | <b>Pt. (Pseudall.) bisubulatus (Rob.) Trouess. et Mègn.</b>                      |
|                                                                                           |                                                                                                     | Abdomen maris postice truncatum, vix excavatum . .                               |
|                                                                                           |                                                                                                     | <b>Pt. (Pseudall.) Gruis Trouess. et Mègn.</b>                                   |



Species huius sectionis hucusque notae sunt:

*Pterolichus (Pseudalloptes) bisubulatus* (Robin) Trouess. (super *Perdix rufa*, *Starna cinerea*; Europa); *Pterol. (Pseudall.) bimucronatus* Trouess. et Mègn. (*Lagopus albus*; Europa; *Phasianus Reevesii*, *Polyplectron bicalcaratum*; Asia); *Pterol. (Pseudall.) Gruis* Trouess. (*Grus cinerea*; Europa); *Pterol. (Pseudall.) aquilinus* Trouess. et Mègn. (*Aquila fulva*, *A. noevia*, *Haliaeetus leucocephalus*; Europa, America); *Pterol. (Pseudall.) aquilinus* var. *milvulinus* Trouess. et Mègn. (*Milvus regalis*; Europa, *Haliastur indus* var. *girrenera*; Australia); *Pterol. (Pseudall.) microdiscus* Trouess. (*Tetrao Urogallus*; Europa):

*Pterolichus (Pseudalloptes) tenuis* Trouess. et Mègn. (super *Amazona menstrua*; America); *Pterol. (Pseudall.) calcaratus* Trouess. et Mègn. (*Bucerotidae*; Malesia etc.); *Pterol. (Pseudall.) pyrriventris* Trouess. (*Scopus umbretta*; Africa); *Pterol. (Pseudall.) tridentiger* Trouess. (*Megapodius jobiensis*; Nova Guinea); *Pterol. (Pseudall.) curtus* Trouess. (*Dasyptilus Pecqueti*; Nova Guinea); *Pterol. (Pseudall.) palmiger* Trouess. (*Talegallus Cuvieri*, *Aepipodius Bruijnii*; Nova Guinea); *Pterol. (Pseudall.) quadratus* Trouess. (*Talegallus Cuvieri*; Nova Guinea); *Pterol. (Pseudall.) thoracosathes* Trouess. (*Megapodius Freycineti*; Nova Guinea); *Pterol. (Pseudall.) forficula* Trouess. (*Ortalida squamata*; America).

## MANIPULUS II. *Pterolichi (Pseudalloptes) cultrigeri*.

Species una tantum in Europa comperta est, ceterae extra Europam sive:

*Pterolichus (Pseudalloptes) didactylus* (Trouess. et Mègn.) Berl. (*Ciconia alba* Europa); *Pterolichus (Pseudalloptes) tritiventris* Trouessart et Mègn. (super *Arara canga*, *A. chloroptera*, *Comurus cruentatus*—America); *Pterol. (Pseudall.) forficiventris* Trouessart et Mègn. (*Caica leucogastra*—America); *Pterol. (Pseud.) spatuliger* Trouess. et Mègn. (*Calyptorhynchus macrorhynchus*—Australia); *Pterol. (Pseudall.) lobiger* Trouess. et Mègn. (*Lorius domicella*—Molucche); *Pterol. (Pseudall.) cultriventris* Trouess. et Mègn. (*Nanodes australis*—Australia); *Pterol. (Pseudall.) securiventris* Trouess. et Mègn. (*Coryphilus taitianus*—Tahiti); *Pterol. (Pseudall.) emargiventris* Trouess. et Mègn.

(*Coryphilus taiitianus* — Tahiti); *Pterol.* (*Pseudall.*) *delibativentris* Trouess. et Mègn. (*Lorius domicella* — Molucche); *Pterol.* (*Pseudall.*) *discifer* Trouess. et Mègn. (*Lorius domicella* — Molucche); *Pterol.* (*Pseudall.*) *gracilis* Trouess. (*Megapodius Iobensis* — Insula Iobi).

#### MANIPULUS 4. *Pterolichi* (*Pseudalloptes*) *delibati*.

Species tantum extraeuropeae sunt etiam in sectione hac, sive:

*Pterolichus* (*Pseudalloptes*) *fissiventris* Trouess. et Mègn. (super *Bucerotidas* — Philippinae insulae; Nova Guinea, India etc.); *Pterol.* (*Pseudall.*) *Berlesei* Trouess. et Mègn. (*Rhyticeros plicatus* — Nova Guinea); *Pterol.* (*Pseudall.*) *Fürstembergi* (Buchholz) Trouess. (*Buceros rhinoceros* — Sumatra, *Anorhinus leucolophus*, *Antracocerus malabaricus* — India; *Hydrocorax planicornis* — Philippinae insulae etc.).

#### MANIPULUS 5. *Pterolichi* (*Pseudalloptes*) *pterocoluri*.

Sectionem hanc species extraeuropea una sistit:

*Pterolichus* (*Pseudalloptes*) *pterocolurus* Trouess. et Mègn. (*Anthrarcocorax convexus* — Sumatra, *Penelopides manillae* — Philippinae insulae).

#### SUBGENUS **Oustaletia**.

Unica species cum varietate sua, corporis fabrica mirabilis, in hoc subgenere sistit, extra Europam collecta, quae est:

*Pterolichus* (*Oustaletia*) *Pegasus* Trouess. (super *Anorhinus galeritus*, *Rhyticeros plicatus*, *Hydrocorax planicornis* etc. — Asia, Malesia; Ins. Philippinae, Nova Guinea); *Pterol.* (*Oustaletia*) *Pegasus* var. *retusus* Trouess. (*Hydrocissa albirostris* — India, *Anorhinus galeritus* — Malacca).

In hoc genere negligere species sequentes:

*Pterolichus Actitidis* Can. sive *Pterocolus Actitidis*;  
*Pterolichus claudicans* Rob. et Mègn. est *Xoloptes claudicans*;  
*Pterolichus corvinus* Can. est. *Pterocolus corvinus*;  
*Pterolichus dermicola* Trouess. sit *Rivoltasia dermicola*;  
*Pterolichus falcigerus* Rob. et Mègn., nec non Hall. etc. appelletur  
*Falciger rostratus*;  
*Pterolichus grandis* Trouess. et Neum. idest *Thecarthra theca*;  
*Pterolichus Landoisii* Buchh. est *Anasicudion Landoisii*;  
*Pterolichus Lyra* Can. est *Pterolichus* (*Crameria*) *lunulatus* var. *Lyra*;  
*Pterolichus Ortyometrae* Can. est *Pterocolus Ortygometrae*;  
*Pterolichus rostratus*, Buchh. dicatur melius *Falciger rostratus*;  
*Pterolichus uncinatus* Rob. et Mègn. appelletur *Epidermoptes uncinatus*.

## GENUS X. **Falciger** Trouessart et Mègn. 1885.

Huius generis species duae tantum hucusque notae sunt sive:

Maris abdomen postice setulis lobulorum interioribus duabus (utrinque una) cultriformibus (*Columbidae*) . . . . . **F. rostratus** (Buchh.)  
 Trouess. et Mègn.

Maris abdomen postice setulis omnibus simplicibus terminatum (*Cyanocorax violaceus*) . **F. cornutus** Trouess.  
 et Mègn.

Species ergo sunt:

*Falciger rostratus* (Buchholz) Trouessart et Mègn (super *Columba palumbus*, *C. oenas*, *C. livia*, *C. domestica*; Europa); *Lophophaps plumifera*; Australia, *Goura coronata*; Nova Guinea etc.) *Falciger cornutus* Trouess. et Mègn (*Cyanocorax violaceus*; Nova Granata).

## GENUS XI. **Bdellorynchus** Trouess. et Mègn. 1885.

Species huius generis duae hucusque notae sunt:

Pedes antici in mari, tibiis longissime piligeris, abdomen maris postice pilis simplicibus ornatum (*Anseres* Europa) . . . . . **Bd. polymorphus** Trouessart et Mègn.

Pedes antici in mari, setis mediocribus aucti, abdomen maris postice pilis et laminulis trigonis, h. alinis ornatum (*Chenalopex aegyptiaca*). **Bd. psalldurus** Trouess.

Species ergo sunt:

*Bdellorhynchus polymorphus* Trouess. et Mègn. (*Querquedula crecca*, *Erismatura leucocephala*, *Spatbula clypeata*; Europa); *Bdellorhynchus psalidurus* Trouess. (*Chenalopex aegyptiaca*; Africa).

GENUS XII. **Xoloptes** Canestrini 1879.

Species huius generis europaea tantum *X. claudicans* est; ceterae extra Europam inventae. Videas enim:

*Xoloptes claudicans* (Robin) Can. (super *Coturnix communis*, *Sterna cinerea*, *Perdix rubra*, *P. saxatilis*; Europa).

*Xoloptes minor* Trouess. (super *Ortalida squamata*; America); *Xoloptes forcipatus* Trouess. (*Notocercus Salloei*; America).

Neglige:

*Xoloptes didactylus* Trouess. et Mègn. qui est *Pterolichus* (*Pseudaloptes*) *didactylus*, quia ambulacris in quartis pedibus gaudet.

GENUS XIII. **Pteronyssus** Robin 1877.

In subgeneribus duobus est dividendum:

Corpus maris postice rotundatum vel truncatum haud (profundius) bilobum. . . . . **Pteronyssus** (s. s.)

Corpus maris postice bilobum, lobulis plus minusve interne et ad apicem membranulis hyalinis marginatis (*Megniniiformes*) . . . . . **Mesalgae** Trouess. et Neum.

SUBGENUS **Pteronyssus** (s. s.)

Huius subgeneris manipuli tres infrascripti sunt:

|                                           |   |                                                               |                         |
|-------------------------------------------|---|---------------------------------------------------------------|-------------------------|
| Species graciles,<br>sive valde elongatae | { | Abdomen maris postice<br>setis simplicibus auctum . . . . .   | <b>Pt. graciles</b>     |
|                                           |   | Abdomen maris postice<br>setis foliiformibus auctum . . . . . | <b>Pt. phyllophori.</b> |

Species crassulae, sive fere aequae longae ac latae . . . . . **Pt. lati.**



MANIPULUS I. (*Pteronyssi graciles*)

Haec sunt species in Europa hucusque inventae:

*Epimera antica* bene intersese discreta . **Pt. obscurus Berl.**

|                                        |   |                                                         |                          |
|----------------------------------------|---|---------------------------------------------------------|--------------------------|
| <i>Epimera antica</i> in<br>V concreta | { | Penis antierius circine chitineo, lato, praeditus . . . | <b>Pt. pallens Berl.</b> |
|                                        |   | Penis antierius nullo circine auctus . . . . .          | <b>Pt. picinus Koch.</b> |

Huius manipuli species quae dignoscuntur sunt:

*Pteronyssus picinus* (Koch) Robin (super *Picidas*; Europa);  
*Pteronyssus pallens* Berlese (*Acrocephalus arundinaceus*; Italia;  
*Machetes pugnax*; Gallia), *Pteronyssus obscurus* Berl. (*Chelidon urbica*, *Cotyle riparia*; Europa);

*Pteronyssus simplex* (Haller) Trouess. (super *Melanerpes erythrocephalus*; America); *Pteronyssus Chiasma* Trouess. (*Pteroglossus Aracari*; America); *Pteronyssus Chiasma* var. *mucronatus* Trouess. (*Rhamphastos dicolorus*; Brasilia); *Pteronyssus bifidus* (*Capito cayannensis*; Guayana); *Pteronyssus spathuliger* Trouess. (*Celeus elegans*; Guayana).

MANIPULUS II. (*Pteronyssi phyllophori*)

Unica huius manipuli species est:

*Pteronyssus phyllophorus* Trouess. (super *Musophaga violacea*; Senegambia).

Sic species in Europa inventae dividantur:

|                                                                                                                                                      |                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Pedes tertii paris in mari extremum abdomen non attingentes; ambulacra omnia longe pedunculata (an ex <i>Epidermopididis</i> ?) ( <i>Musiscapa</i> ) | Pt. integer Trouess. et |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|

|                                                                    |               |                           |
|--------------------------------------------------------------------|---------------|---------------------------|
| Pedes tertii parisi in mari vix tarso abdomen postremum superantes | . . . , . . . | <b>Pt. brevipes Borl.</b> |
| ( <i>Picus medius</i> )                                            | . . . , . . . |                           |

*Setulae abdominis* (sive lami-  
dium) chitinea an-  
terius nemem mar-  
In mari setulae  
abdominis postici  
utrinque 5; pedes  
tertii pars articu-  
lis postremis tri-  
bus abdomen su-  
perantes (*Singilla*) **Pt. striatus** Rob.

Pedes tertii  
paris in mari  
extremum ab-  
domen certesu-  
perantes

Pedes tertii pa-  
ris in mari saltem  
tibia tarsoque ab-  
domen postremum  
superantes.

Epiandrium nullum vel subevanidum (*Parus caeruleus*) . . . . Pt. parinus (K.) Hall.

Setulae abdominis postici in mari postice marginans in medio profunde incisa (*Gecinus canis*). . . . . **Pt. quadratus Hall.**

Laminula hyalina abdomen maris  
postice marginans integra (*Sturnus*) **Pt. truncatus Trouess.**

Species huius manipuli hucusque notae sunt:

*Pteronyssus parinus* (Koch) Haller (super *Parus caeruleus*; Europa); *Pteronyssus striatus* Robin (*Fringilla coelebs*; Europa); *Pteronyssus brevipes* Berl. (*Picus medius*; Italia); *Pteronyssus nuntiae* Berl. (*Cotyle riparia*; Italia); *Pteronyssus quadratus* Hall. (*Gecinns canus*; Europa); *Pteronyssus quadratus* var. *truncatus* Trouess. (*Sturnus vulgaris*; Europa). *Pteronyssus integer* Trouess. et Neum. (*Muscicapa griseola*; Europa).

*Pteronyssus quadratus* Hall. var. *subtruncatus* Trouess. (super *Eulabes javanensis*; Insulae Philippinae); *Pteronyssus hipposathes* Trouess. (*Astrapia nigra*; Nova Guinea); *Pteronyssus latior* Trouess. (*Astrapia nigra*; Nova Guinea); *Pteronyssus conurus* Trouess. (*Pogonorbynchus bidentatus*, *Barbatula leucoloema*; Africa); *Pteron. conurus* var. *dislocatus* Trouess. (*Pogonor. bidentatus*; Africa); *Pteronyssus acris* Trouess. et Neum. (*Megapodius Lapeyrousei*; Insulae Mariannae).

#### SUBGENUS **Mesalges**.

In manipulos dividatur sive:

Pedibus quarti paris in mari tarso truncato, brevissimo, saepius dentibus apice aucto **Pt. (Mesalg.) truncati**

Pedibus quarti paris in mari tarso normali, conico . . . . . **Pt (Mes.) lobati**

#### MANIPULUS I. (*Pteronyssi* [*Mesalges*] *truncati*)

Excepto *Pt. Aluconis* (Buchh.) Berl. (*Otus brachyotus*; Europa); ceteri omnes extraeuropaei (super *Bucerotidas* inquirendi), sive:

*Pteronyssus* (*Mesalges*) *abbreviatus* (Buchh.) Trouess. et Neum. (super *Buceros rhinoceros*, *B. plicatus*; Malesia, Nova Guinea); *Pteron. (Mes.) lyrurus* Trouess. et Neum. (*Buceros plicatus*, *Anorhinus galeritus*, *Buceros rhinoceros*; Malesia, Nova Guinea); *Pteronyss. (Mes.) elephantopus* Trouess. et Neum. (*Buceros plicatus*, *Anorhinus galeritus* etc.; Cochinchina, Malacca, Nova Guinea); *Pteron. (Mes. lyriodes* Trouess. et Neum. (*Dendrochelidon mystaceus*; Nova Guinea); *Pteron. (Mes.) spinosus* Trouess. et Neum. (*Buceros plicatus* etc.; Nova Guinea); *Pteron. (Mes.) truncatipes* Trouess. et Neum. (*Buceros rhinoceros*; Sumatra).

MANIPULUS II. (*Pteronyssi* [*Mesalges*] *lobati*)

Species in Europa collectae sic dividantur:

Mas epimeris tertii et quarti paris utriusque lateris in medio sterno simul in scutulum rectangulum concretis. . . . . **Pt. (Mes.) fuscus (Nitzsch) Trouess.**

Mas epimeris tertii et quarti paris utriusque lateris intersese discretis {  
 Maris abdomen postice longe bicornis . . . . . **Pt. (Mes.) Puffini (Buchh.) Trouess.**  
 Maris abdomen postice dilatatum, vix incisum . . . **Pt. (Mes.) Ibis Trouess.**

Species manipuli huius hucusque notae sunt:

*Pteron. (Mes.) Puffini (Buchh.) Trouess.* (*Sterna, Larus, Puffinus, Procellaria, Thalassidroma, Lestris, Dromas etc.*; Europa etc.); *Pteron. (Mes.) fuscus (Nitzsch) Trouess.* (*Pandion haliaetus*; Europa); *Pteron. (Mes.) Ibis Trouess.* (*Ibis falcinellus, Platalea leucordia*; Europa).

*Pteron. (Mes.) circiniger Trouess.* (*Sula fiber*; Ins. Philippinae); *Pteron. (Mes.) bicalcaratus Trouess.* (*Plotus Levallanti*; Africa).

Huius generis negligere species sequentes:

*Pteronyssus infuscatus* Trouess. idest *Pteronyssus obscurus*  
*Pteronyssus quinquesetatus* Zimmermann est *Pteronyssus striatus*  
*Pteronyssus truncatus* Trouess. est *Pteronyssus quadratus* var. *truncatus*

GENUS. XV. **Megninia** Berlese 1892.

Sic in subgenera duo dividatur:

Abdomen maris postice bifidum, saepe membranulis hyalinis auctum . . . . . **Megninia (s. s.)**

Abdomen maris postice integrum vel tenuissime bifidum (*Analgiformes*) . . . . . **Hemialges Trouess.**

SUBGENUS **Hemialges** Trouess.

Species unica maior dignoscitur sive:

*Megninia (Hemialges) magnifica* Trouess. (super *Paradisidas*; Nova Guinea).



**Species subgeneris *Megninia* sunt:**

*Megninia appendiculata* (Hall.) Berl. (super *Rallus aquaticus*; Germania, Gallia, Italia); *Megninia cubitalis* (Mègn.) Berl. (*Gallus domesticus*; Europa); *Megninia aternalis* (Mègnin) Berl. (*Columba*, *Passeres* etc; Europa); *Megninia oscinum* (Koch.) Berl. (*Passeracei*; Europa); *Megninia velata* (Mègnin) Berl. (*Palmipedes*; Europa); *Megninia centropoda* (Mègn.) Berl. (*Vanellus cristatus*; Europa); *Megninia ginglymura* (Mègn.) (*Gallinacei*, *Palmipedes*; Europa); *Megninia gracilipes* (Trouess. et Neum) Berl. (*Totanus calidris*; Europa); *Megninia calcarata* (Hall.) Berl. (*Ortygometra porzana*; Germania); *Megninia Gallinulae* (Buchh.) Berl. (*Gallinula*, *Rallus*, *Perdix*; Europa); *Megninia Gallinulae* var. *maior* Berl. (*Ortygometra porzana*); *Megninia Columbae* (Buchh.) Berl. (*Columba domestica*; Europa); *Megninia aestivalis* Berl. (*Cypselus apus*; Italia); *Megninia aestivalis* var. *subintegra* Berl. (*Chelidon urbica*, *Cotyle riparia*; Italia); *Megninia Glandarii* (Buchh.) Trouess. (*Garrulus glandarius*; Germania). *Megninia grossa* Berl. (*Gallinula chl.*; Italia).

*Megninia aculeata* (Hall.) Trouess. (super *Cyanurus cristatus*; ubi?); *Megninia Tyrellii* (Hall.) Trouess. (*Galeoscoptes carolinensis*; ubi?); *Megninia gladiator* (Hall.) Trouess. (*Ectopistes migratorius*; ubi?); *Megninia forcipata* (Hall.) Trouess. (*Tringoides macularis*; Canada); *Megninia inflata* Trouess. (*Caica leucogastra*; Brasilia); *Megninia megalixus* Trouess. (*Cissa thalassina*; Iava); *Megninia psoroptopus* Trouess. (*Buceros bicornis*, *Hydrocissa albirostris*; India, Cochinchina, Malesia); *Megninia androgyna* Trouess. (*Ocidromus australis*; Nova Zelandia); *Megninia elongata* Trouess. (*Ocydromus australis*; Nova Caledonia); *Megninia Laglaizae* Trouess. (*Epimacus maximus*; Nova Guinea; *Podager papuensis*; Insula Iobi); *Megninia harpipodus* Trouess. (*Podager papuensis*; Nova Guinea); *Megninia effeminata* Trouess. et Neum. (*Mellirhophates leucostepus*; Nova Guinea); *Megninia pappus* Trouess. et Neum. (*Manucordia atra*; Nova Guinea).

**Neglige species sequentes:**

*Megninia Ibidis* Trouess. (nec non Berl. A. M. S.) sit *Pteronyssus* (Megalges) *Ibidis*.

*Megninia rallorum* Trouess. idest *Megninia appendiculata* (Hall.) Berl.





GENUS XV. Analges Nitzsch 1818.

Sic huius generis europaeas species dividas:

Maris tertii paris coxa multo strictior quam femur, ita ut pedes pedunculati adpareant. Corpus subalbidum pedes tertii paris badii vel fuscescens, ceteri pedes albidus).

Corpus lateribus supra pedum tertii paris originem, apophysi longe  
nata, extrorsum et deorsum recurva, hyalina, preditum (Mas.) (*Monachus*  
*tensis*, *M. atricapillus*) . . . . .

**A. clavipes** Berl.

tes, ceteri pedes albidii).

Corpus lateribus inermibus (Mas.) (*Calobates melanope*, *Emberiga citrinella*) **A. NITZSCHLI HALL.**

Corpus lateribus inermibus (Mas.) (*Calobates melanope*, *Emberiga citrinella*) **A. NITZSCHLI HALL.**

Femur tertii  
paris (in mari) tu-  
berculi tres sunt,  
basi simul coarctati.

Maris abdomen postice angulatum, in angulo membranula parva, rectangula, hyalina auctum. Mucro abdominis setis utrinque tribus, ex quibus quatuor interiores, intersese longiudine subpares, externis multo longiores.

Mucrones femuris tertii paris tres, inter sese magnitudine subparēs, (*Aralda arvensis*) . . .

Pedes tertiū pa-  
ris maris femure  
interne (apice)  
dentibus vel mu-  
cronibus, vel apo-  
physibus aucto.

Maris abdomen posticè mucronatum, non membranula auc-  
tum, setis utrinque tribus, ex quibus mediae ceteris multo  
longiores (*Picus niger*) . . . . .

|                                           |                     |
|-------------------------------------------|---------------------|
| Apophysis femuris (tibiaeque) terti       | paris unica, magna, |
| spiniformis ( <i>Petrocincla cyanea</i> ) | .....               |

Maristertiiparis coxa latitudine femurisubsimilis, ergo pedes isti sexiles adparent. (Corpus roseum, pedibus omnibus concoloribus.

Femur tertii pa-  
ris (in mari) tuber-  
culi duo sunt vel  
unica apophysis  
spiniformis adest.

Tuberculi duo sunt  
parvuli, vel vix conspi-  
cui in femore tertii pa-  
ris.

Maris abdomen postice in apophyses duas corniculatas, perconspicuas productum (*Fringilla*) . . .

Adomen m  
*nistes caeruleus*)

s postice in mucronem valide spiniformem productum (Cya-

Pedes tertii pa-  
ris maris femure  
interne haud tu-  
berculis vel apo-  
physibus praedito.

Pedes tertii paris ceteris vix robustiores et longiores . . .

A. incertus  
A. clavipes  
A. Nitzschii  
A. pachychnaemiuss  
A. passerinus  
A. pollicipatus  
A. mucronatus  
A. corvinus  
A. tridentulatus  
A. bidentatus  
A. unidentatus

Harum specierum  
mares homeomorphi

nem haud productum sed truncatum









Sic species in Europa collectae, hucusque descriptae dividantur:

|                                                     |                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Epimera antica simul in<br/>Y bene concreta.</p> | <p>Pedes tertii paris tarsis subglobosis, interne appendicula calcariformi, bidentula aucti, vix apicem abdominis attingentes (<i>Rallus</i>) . . . . . <b>M. appendiculata</b> (Hall.) Trouess.</p>                                                                                                                                                          |
|                                                     | <p>Pedes tertii paris tarsis valde elongatis, apice inermibus, summa tibia totoque tarso abdomen postremum superantes (<i>Strix otus</i>) . . . . . <b>M. Strigisoti</b> (Buchh.) Berl.</p>                                                                                                                                                                   |
| <p>Epimera antica interse<br/>discreta.</p>         | <p>Pedes tertii paris tota tibia tarsoque quartos pedes superantes; tibiae tertii paris apice vix bidentulo (<i>Picus maior</i>) <b>M. Picimaloris</b> (Buchh.) Berl.</p>                                                                                                                                                                                     |
|                                                     | <p>Pedes tertii paristantum tarso quartos pedes superantes; tibiae tertii paris apice (externo) calcari articulatissimo armatae (<i>Oscinus</i>) . . . . . <b>M. Oscinum</b> (Koch) Berl.</p>                                                                                                                                                                 |
| <p>Epimera antica interse<br/>discreta.</p>         | <p>Pedes primi et secundi paris articulo secundo basi cornu, apice quadripilum vel quinquepilum. {<br/>Setae duae longiores interiores. <b>M. forelpata</b> (Hall.) Trouess.<br/>Setae duae longiores, interminimas insitae. <b>M. velata</b> (Mègn.) Trouess. <i>et var.</i></p>                                                                             |
|                                                     | <p>Pedes primi secundique paris articulo secundo basi tuberculo olecranico validiori aucti (<i>Vanellus</i> etc.) . <b>M. centropolos</b> (Mègn.) Trouess.</p>                                                                                                                                                                                                |
| <p>Epimera antica in Y vel in V bene concreta</p>   | <p>Quarti paris tarsus articulo secundo bicalcaratus. . . . . <b>M. calcarata</b> (Hall.) Trouess.</p>                                                                                                                                                                                                                                                        |
|                                                     | <p>Quarti paris tarsus unicalcaratus. <b>M. Ibidis</b> Trouess. <i>et var.</i></p>                                                                                                                                                                                                                                                                            |
| <p>Epimera antica interse<br/>discreta.</p>         | <p>Quarti paris tarsus haud tuberculigerus (<i>Cypselus, Cotyle, Chelidoni</i>) . . . . . <b>M. aestivalls</b> Berl.</p>                                                                                                                                                                                                                                      |
|                                                     | <p>Epimera antica summo apice interse in V concreta (<i>Gallus domestic.</i>) <b>M. cubitalis</b> (Mègn.) Berl.</p>                                                                                                                                                                                                                                           |
| <p>Epimera antica interse<br/>discreta.</p>         | <p>Lobuli abdominis maris transverse fere in partibus duabus subarticulatis divisi. {<br/>Lobuli abdom. maris setulis apicalibus 5 longis aucti (<i>Corvidae, Gallinacci, Falci.</i>) <b>M. ginglymura</b> (Mègn.) Berl.<br/>Lobuli abdom. maris setulis apicalibus tantum 2 longis aucti (<i>Phasianus</i>) . . . . . <b>M. asternalis</b> (Mègn.) Berl.</p> |
|                                                     | <p>Pedes quarti paris in mari extremum abdomen non attingentes (<i>Garrulus glandarius</i>) . . . . . <b>M. Glandarii</b> (Buchh.) Berl.</p>                                                                                                                                                                                                                  |
| <p>Epimera antica interse<br/>discreta.</p>         | <p>Pedes quarti paris in mari extremum abdomen summo tarso attingentes. {<br/>Epimera antica saltem in mari in V concreta (<i>Gallinula, Rallus, Perdix</i>) . . . . . <b>M. Gallinulae</b> (Buchh.) Berl.</p>                                                                                                                                                |
|                                                     | <p>Pedes quarti paris in mari extremum abdomen summo tarso attingentes. {<br/>Epimera antica saltem in mari in V concreta (<i>Gallinula, Rallus, Perdix</i>) . . . . . <b>M. Gallinulae</b> (Buchh.) Berl.</p>                                                                                                                                                |





Species, quamvis nonnullae minus bene intersese distinctae, generis *Analges* haec sunt:

*Analges bidentatus* Giebel (super *Acrocephalus arundinaceus* *Accentor modularis*; Europa); *Analges clavipes* Berl. (*Monachus*; Europa); *Analges corvinus* Mègn. (*Corvus*; Europa); *Analges digitatus* Hall. (*Dendroecia striata*); *Analges hoplophorus* Trouess. et Neum. (*Gracula robusta*; Nova Guinea); *Analges lobatus* Trouess. (*Celeus elegans*; Guaiana); *Analges mucronatus* Buchh. Berl. (*Cyanistes caeruleus*; Europa); *Analges Nitzschii* Hall. (*Calobates*, *Emberiga* etc.; Europa); *Analges pachycnemius* Giebel (*Picus niger*; Europa); *Analges passerinus* (D. G.) R. et M. (*Fringilla* etc. Europa); *Analges tridentulatus* Hall. (*Alauda*; Europa); *Analges unidentatus* Berl. (*Petrocyncla cyanea*; Europa); *Analges pollicipatus* Hall. (*Accentor modularis*; Europa).

Species huius generis negligendae vel in alio genere inserendae sunt;

*Analges acanthurus* Giebel; an *Proctophyllodes truncatus*?  
*Analges chelopus* Canestr.; idest. *A. passerinus* D. G.  
*Analges coleoptratus* Hall., mas est nomeomorphus *A. tridentulati*.  
*Analges crassipes* Giebel, est *Alloptes Phaetontis*;  
*Analges cubitalis* Mègn. idest *Megninia cubitalis*;  
*Analges Fringillarum* Haller (nec non Canestr.), idest *A. passerinus*;  
*Analges incertus* Berl. mas est homeomorphus *A. clavipedis*;  
*Analges integer* Giebel idest *A. corvinus* var.  
*Analges gracilis* Haller, an *Pteronyssus picinus*?  
*Analges macropus* Zimm., idest *A. pachycnemius*;  
*Analges Makowskyi* Zimm., sive *Analges corvinus*;  
*Analges Oscinum* Mègn. est *Megninia Oscinum*;  
*Analges pinnatus* Giebel. idest forsitan *Proctophyllodes Ampelidis*;  
*Analges pollicipatus* Hall. an satis distinctus ab *A. bidentatus*?  
*Analges serratilobatus* Giebel, sive *Megninia serratilobata*;  
*Analges setifer* Giebel, an *Megninia Columbae*?  
*Analges sinuosus* Mègn. idest *Megninia Strigisoti*  
*Analges sphaeropus* Zimm., est *Analges corvinus*;  
*Analges socialis* Giebel., an *Proctophyllodes*?  
*Analges socialis* Mègn. est *Megninia serratilobata*;  
*Analges velatus* Mègn. idest *Megninia velata*;  
*Analges unidentatus* Zimm. est *Analges digitatus* Hall.

GENUS XVI. **Protalges** Trouess. et Mégn. 1884.

Species Europae duae sunt sive:

Abdomen maris postice membranulis duabus hyalinis, minimis praeditum . . . **P. attenuatus (Buchh.) Trouess. et Mégn.**

Abdomen maris postice membranulis hyalinis duabus rotundatis, latioribus auctum . . . **P. accipitrinus Trouess.**

Species hucusque notae sunt:

*Protalges attenuatus* (Buchh.) Trouess. et Mégn. (super *Strigidas*; Europa); *Protalges accipitrinus* Trouess. (*Falco tinunculus*; Europa).

*Protalges Robini* Trouess. (super *Pteroglossus sulcatus*; Brasilia); *Protalges australis* Trouess. (*Glycyphila fasciata*; Australia); *Protalges australis* var. *antipodum* Trouess. (*Anthonis melanura*; Nova Zeelandia); *Protalges curtus* Trouess. (*Platycercus Pennatii*; Australia); *Protalges psittacinus* Trouess. (*Strigops habroptilus*; Nova Zeelandia); *Protalges lorinus* Trouess. (*Lorius garrulus*; *L. domicella*; Nova Guinea); *Protalges larva* Trouess. (*Ara macao*, *Amazona melanocephala* etc. America); *Protalges larva* var. *integrijolia* Trouess. (*Ara severus*, *Conurus cruentatus*, *C. smaragdinus*, *Psittaculus virescens*; America); *Protalges larva* var. *brevis* Trouess. (*Psittacula lunulata*; Ins. Philippinae); *Protalges palmatus* Trouess. (*Anorhinus leucolophus*; Malesia); *Protalges affinis* Trouess. (*Pterophanes Temminki*, *Aglaectis cupripennis*; Nova Granata); *Protalges circumniger* Trouess. (*Corythaix purpurea*; Africa); *Protalges longitarsus* Trouess. et Neum. (*Petazophora iolata*, *Eulampis jugularis*; Bolivia et Martinica).

GENUS XVII. **Nealges** Trouess. 1886.

Unica generis huius species hucusque nota est:

*Nealges Poppei* Trouess. (super *Sula piscatrix*; Nova Zeelandia).

GENUS XVIII. **Analloptes** Trouess. 1885.

Species in Europa compertae huius generis tres sunt, sive:

|                                                                                                              |                                                                                                                                |                                                    |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Maris abdomen postice obtusum, vix tenuissime sinuatum, nulla vel minima membranula hyalina marginatum       | Corpus elongatissimum, certe quadruplo longius quam latum; penis valde anticus, vix post coxas secundi paris insitus . . . . . | <b>A. Pallens</b> Trouess. et Neum.                |
|                                                                                                              | Corpus vix longius quam latum; penis inter coxas tertias insitus . . . . .                                                     | <b>A. Stellaris</b> (Buchh.) Trouess.              |
| Maris abdomen postice profundius bilobum, lobulis lata membranula hyalina marginatis ( <b>A. Megninii</b> ). | Mas ad 400 $\mu$ . . . . .                                                                                                     | <b>A. Megninii</b> Trouess.                        |
|                                                                                                              | Mas ad 470 $\mu$ . . . . .                                                                                                     | <b>A. Megninii</b> var. <b>Falcinelli</b> Trouess. |

Species in hoc genere inserendae sunt:

*Analloptes Stellaris* (Buchb.) Trouess. (super *Ardea stellaris*; Europa); *Analloptes Megninii*; Trouess. (*Rallus aquaticus*; Gallia). *Analloptes Megninii* var. *Falcinelli* (*Ibis falcinellus*, *Platalea leucordia*; Europa); *Analloptes pallens* Trouess. et Neum. (*Porzana Bailloni*; Gallia).

*Analloptes bipartitus* Trouess. (super *Anthracoceus convexus*, *Anthracoceus malayanus*; Sumatra, Malacca); *Analloptes elythrura* Trouess. (*Bucerotidae*); *Analloptes pterocolurus* Trouess. (*Tachypetes aquila*; Oceanum Indicum); *Analloptes pterocolurus* var. *velatus* (*Tachypetes aquila*); *Analloptes Psophiae* Trouess. et Neum. (*Psophia agami*; Brasilia);

GENUS XIX. **Xolalges** Trouess. 1885.

Species una tantum in Europa est comperta, ceterae exoticae sunt, sive:

*Xolalges scaurus* Trouess. (super *Cuculus canorus*; Europa).  
*Xolalges analginus* Trouess. (*Aulacops caeruleicinctus*; A-



merica; *Dendroeca oetira*, *Eloena martinica* etc.; Guadalupa); *Xolalges analginus* var. *pessophorus* Trouess. et Neum. (*Mellirophates leucostephus*; Nova Guinea); *Xolalges astacopodus* Trouess. et Neum. (*Chibia carbonaria*; Nova Guinea); *Xolalges spinosus* Trouess. et Neum. (*Todopsis cyanocephala*; Nova Guinea).

## GENUS XX. *Allanalges* Trouess. 1886.

Huius generis species duae dignoscuntur, quae sunt:

Epimera antica in V simul concreta; maris abdomen postice foliolis externe crenulatis auctum (*Merops*) . . . . . **A. analgoides** Trouess.

Epimera antica intersese discreta; maris abdomen postice foliolis externe integris auctum (*Lanius*) . . . . . **A. gracilipes** Trouess.

Species huius generis hucusque notae istae sunt:

*Allanalges analgoides* Trouess. (super *Merops apiaster*; Europa; *Merops badius*; Malacca); *Allanalges gracilipes* Trouess. (*Lanius excubitor*; Europa; *Psarisomus Dalbousiae*, *Cymbirbrynchus macrorhynchus* Malacca).

*Allanalges podagricus* Trouess. (super *Chrysococcyx smaragdinus*; Senegal); *Allanalges bifoliatius* Trouess. et Neum. (*Megapodius Freycineti*; Nova Guinea).

## GENUS XXI *Pterocolus* Haller 1878 - 1881.

Genus hoc in manipulos duos dividatur, sive:

Maris abdomen postice attenuatum, in lobulos duos divisum, lobuli iidem intersese valde appressi, contigui . . . . . **Pterocoli caudati**

Maris abdomen postice dilatatum, in lobulos duos divisum, lobuli iidem intersese valde discreti . . . . . **Pterocoli delibati**

MANIPULUS I. (*Pterocoli delibati*)

Sic (europeai) dividantur:

Lobuli abdominis maris mediocres, apice  
membranula hyalina, transverse radiatim et te-  
nuissime striata aucti . . . . . **Pt. Ortygometrae (Can.)**  
**Trouess.**

|                                                                                              |   |                                                                                       |                                                     |
|----------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------|-----------------------------------------------------|
| Lobuli abdominis<br>maris longiores, a-<br>pice membranula<br>hyalina, simplici or-<br>nati. | { | Mas pedibus quarti paris<br>quinquearticulatis; foemina<br>postice bene bifurca . . . | <b>Pt. Actitidis (Can.) Berl.</b>                   |
|                                                                                              |   | Mas pedibus quarti paris<br>quadriarticulatis; foem. po-<br>stice integra . . . , . . | <b>Pt. forficiger (Trouess.<br/>et Mègn.) Berl.</b> |

Huius manipuli species hucusque notae sunt:

*Pterocolus Ortygometrae* (Can.) Trouess. (super *Ortygo-  
metra porzana*; *O. pusilla*; Europa); *Pterocolus Actitidis* (Can.)  
Berl. (*Tringa cinclus*, *T. Temminckii*, *T. minuta*; Europa); *Pte-  
rocol. Actitidis* var. *discosurus* (Trouess.) Berl. (*Grus cinerea*;  
Europa); *Pterocolus forficiger* (Trouess et Mègn.) Berl. (*Co-  
lymbus glacialis*; Europa).

*Pterocolus Ortygometrae* var. *furcifer* Trouess. (super *Cur-  
sorius bicinctus*; Africa); *Pterocolus lambda* Trouess. (*Nettapus  
auritus*; Madagascar; *Pterocolus bilaniatus* Trouess. (*Mniotilta  
citrea*; Antillae Ins.); *Pterocolus rotifer* Trouess. et Neum. (*Mel-  
lirophates leucostephus*; Nova Guinea).

MANIPULUS II. (*Pterocoli caudati*)

Haec sunt species in Europa compertae:

Maris incisura abdominis inter lobulos usque ad disculos copulationis producta; epimera antica in V concreta . . . **Pt. Edwardsii Trouess.**

|                                                                                                                                 |                                                                                                   |                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maris incisura abdominis inter lobulos valde a disculis copulationis remota, brevior; epimera antica inter sese omnino discreta | Laminulae hyalinae abdominis maris apicem marginantes, externe serrulatae ( <b>Pt. corvinus</b> ) | Maris scutum dorsuale abdominis lateribus profunda incisura signatis; foem. pedibus posticis extremum abdomen apice attingentibus ( <i>Corvus</i> ) . . . . . <b>Pt. corvinus (Koch) Hall.</b>   |
|                                                                                                                                 |                                                                                                   | Maris scutum dorsuale abdominis lateribus haud incisum (tantum sinuatis); foem. pedibus posticis abdomine multo curtioribus ( <i>Sturnus</i> ) . . . . . <b>Pt. corvinus var. Rostorii Berl.</b> |
|                                                                                                                                 |                                                                                                   | Foemina adulta appendicula circumcinata, inter lobulos abdominis porrecta, aucta ( <i>Hirundines</i> ) . . . <b>Pt. appendiculatus Berl.</b>                                                     |
|                                                                                                                                 | Laminulae hyalinae abdominis maris apicem marginantes externe integrae.                           | Utriusque sexus scutum abdominis dorsuale lateribus profunda fissura exaratis ( <i>Chelidon urbica</i> ) . . . <b>Pt. appendiculatus var. minutipes Berl.</b>                                    |
|                                                                                                                                 |                                                                                                   | Foemina adulta appendicula inter lobulos abdominis nulla.                                                                                                                                        |
|                                                                                                                                 |                                                                                                   | Utriusque sexus scutum dorsuale abdominis lateribus integris ( <i>Sylvia, Calamodyta</i> ) <b>Pt. bifurcatus Trouess.</b>                                                                        |

Manipuli huius species haec sunt:

*Pterocolus Edwardsii* Trouess, (*Sylvia, Acrocephalus*; Europa); *Pterocolus corvinus* (Koch) Hall. (*Corvidae*; Europa etc.); *Pterocolus corvinus* var. *Rostorii* Berl. (*Sturnus vulgaris*; Europa); *Pterocolus bifurcatus* Trouess. (*Calamodyta aquatica, Sylvia*; Europa; *Eurylaimus ochromelas*; Malacca; *Centropus viridis*; Philippinae Ins.); *Pterocolus appendiculatus* Berl. (*Hirundines*; Europa); *Pterocol. appendiculatus* var. *minutipes* Berl. (*Hirundines*; Europa).

*Pterocolus Eulabii* (Buchh.) Hall. (*Eulabes religiosa*; Iava);

*Pterocolus gracilipinnatus* Haller (*Empidonax flaviventris*; America; Passeracei; America); *Pterocolus elegans* Trouess. (*Barbatula leucoloema*; Africa).

Neglige species sequentes:

*Pterocolus bilobatus* Trouess. est *Pterodectes bilobatus*;  
*Pterocolus bisetatus* Hall. sit *Alloptes crassipes*;  
*Pterocolus Cypseli* Hall. sive *Alloptes Cypseli*;  
*Pterocolus Iedliozkai* Zimmermann idest *Pterocolus appendiculatus*.

## GENUS XXII. *Alloptes* Canestr. G. 1879.

Sic in manipulos dividatur:

|                                                              |   |                                                                          |                       |
|--------------------------------------------------------------|---|--------------------------------------------------------------------------|-----------------------|
| Maris abdomen postice integrum, tenuissime incisum, obtusum. | { | Foeminae abdomen lobulis<br>appendicula gladiiformi terminatis . . . . . | <b>Manipulus I.</b>   |
|                                                              |   | Foeminae abdomen lobulis<br>appendicula setiformi praeditis              | <b>Manipulus IV.</b>  |
| Maris abdomen profunde incisum, bilobum.                     | { | Foeminae abdomen lobulis<br>appendicula gladiiformi terminatis . . . . . | <b>Manipulus II.</b>  |
|                                                              |   | Foeminae abdomen lobulis<br>appendicula setiformi auctis                 | <b>Manipulus III.</b> |



(GENUS *Alloptes*)

haec sunt species europeae :

|                                                                                      |                                                                                                                   |                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Maris abdomen<br/>postice distincte<br/>incisum</p>                               | <p>Penis longissi-<br/>mus flagelliformis</p>                                                                     | <p>Maris abdomen<br/>postice latiuscu-<br/>lum bilobum</p>                                                                                                                                                                                                                                                                                   | <p>Maris abdomen<br/>postice attenuatum,<br/>lobulorum apicibus tenui et curtula<br/>membranula auctis (<i>Fringilla coelebs</i>) . . . . . <b>A. microphyllus (Rob.) Trouess.</b></p> |
|                                                                                      |                                                                                                                   | <p> <p>Lobuli abdominis<br/>maris nulla membra-<br/>nula auctis (<i>Scolopax<br/>gallinago</i>) . . . . . <b>A. flagellicaulus Trouess. et Neum.</b></p> <p>Lobuli abdominis<br/>maris appendicula<br/>hyalina cultriformi<br/>longa, aucti (<i>Fringil-<br/>la montifringilla</i>) . . . . . <b>A. hemiphyllus (Rob.) Trouess.</b></p> </p> |                                                                                                                                                                                        |
| <p>Penis brevis non<br/>incisuram abdomi-<br/>nis attingens</p>                      | <p>Abdomen maris<br/>postice setis quatuor longioribus prae-<br/>ditum (<i>Ortygometra porzana</i>) . . . . .</p> | <p>Penis styliformis; disculi copulationis<br/>clavati (<i>Accentor modularis</i>) . . . . . <b>A. Modularis Berl.</b></p>                                                                                                                                                                                                                   |                                                                                                                                                                                        |
|                                                                                      |                                                                                                                   | <p>Penis brevissimus mucroniformis; di-<br/>sculi copulationis sexiles (<i>Strobilopaga<br/>enucleator</i>) . . . . . <b>A. aphyllus Trouess.</b></p>                                                                                                                                                                                        |                                                                                                                                                                                        |
| <p>Maris abdomen<br/>postice in conum<br/>attenuatum (haud<br/>incisum) desinens</p> | <p>Abdomen post-<br/>ice longe bisetum</p>                                                                        | <p>Epimera postica (tertii quartique paris)<br/>interseae discreta (<i>Cypselus apus</i>) . . . . . <b>A. quadrisetatus Berl.</b></p>                                                                                                                                                                                                        |                                                                                                                                                                                        |
|                                                                                      |                                                                                                                   | <p>Epimera tertii quartique paris inter-<br/>seae bene coniuncta (<i>Sterna, Lestris<br/>Stringa, Squatarola, Eudromias, Nume-<br/>nus, Dromas</i> etc.) . . . . . <b>A. crassipes Can.</b></p>                                                                                                                                              |                                                                                                                                                                                        |

Haec sunt generis *Alloptes*, species hucusque notae:

### MANIPULUS I.

Maris abdomen postice attenuatum, haud incisum neque bilobatum. Foeminae abdomen postice in appendicibus gladiiformibus desinens.

*Alloptes Norneri* Trouess. (super *Cynanthus mocoa* aliasque passeraceas Americae merid.)

*Alloptes aviculocaulis* Trouess. (*Euxoteres aquila*, *Phactornis longirostris*, America);

### MANIPULUS II.

Maris abdomen postice plus minusve attenuatum, in medio incisum, bilobum. Foeminae postico abdomine appendicibus gladiiformibus aucto.

*Alloptes hemiphyllus* Robin (super *Fringilla montifringilla* Europa); *Alloptes microphyllus* Robin (*Fringilla coelebs* Europa); *Alloptes Modularis* Berl. (*Accentor modularis*, Europa); *Alloptes aphyllus* Trouessart (*Strobilophaga enucleator*, Europa); *Alloptes lobulatus* Trouessart (*Meliornis sericea*, Australia); *Alloptes securiger* Trouess. (*Microchelidon hirundinacea*, Australia); *Alloptes pteronyssoides* Trouess. (*Pipra aureola*, *P. erythrocephala*, America); *Alloptes megamerus* Trouess. (*Dasyptilus Pecqueti*, Nova Guinea); *Alloptes scissus* Trouess. (*Euxoteres Aquila*, Nova Granata); *Alloptes syringophorus* Trouess. et Neum. (*Manucordia atra*, Nova Guinea).

### MANIPULUS III.

Maris abdomen postice profunde incisum, lobulis interne membranula hyalina marginatis. Foeminae abdomine appendicibus gladiiformibus aut setiformibus terminato.

*Alloptes dielytra* Trouess. (super *Pipra erythrocephala*, *P. Aureola*, America); *Alloptes microphaeton* Trouess. (*Phaeton aethereus*); *Alloptes discosurus* Trouess. (*Podoa senegalensis*, Africa).

## MANIPULUS IV.

Abdomen maris postice attenuatum, integrum. Foeminae abdomen postice appendicibus setiformibus auctum.

*Alloptes crassipes* Canestr. (super aves generis *Limosa*, *Tringa*, *Eudromias*, *Squatarola*, *Numenius*, *Ibis*, *Dromas*, *Sterna*, etc.); *Alloptes Cypseli* Canestr. et Berl. (*Cypselus apus*, Europa); *Alloptes Phaetontis* (Linné) Trouess. (*Phaeton aethereus*); *Alloptes abbreviatus* Trouess. (*Ibis rubra*, America; *Alloptes euryurus* Trouess. (*Platalea ajaia*, America; *Alloptes trachelurus* Trouess. (*Platalea Aiaja*, America); *Alloptes claviger* Trouess. (*Ibis rubra*, America; *Alloptes petazophorus* Trouess. (*Aramus scolopaceus*, Nova Granata); *Alloptes coniventris* Trouess. (*Trachypetes aquila*, India); *Alloptes gynurus* Trouess. (*Chenalopex aegyptica*, Africa); *Alloptes corymbophorus* Trouess. et Neum. (*Ibis strictipennis*, Australia);

## MANIPULUS V.

In Genus *Proctophyllodes*, praecipue propter maris characteres incurrens.

*Alloptes flagellicaulus* Trouess. et Neum. (*Scolopax gallinago*, Europa); *Alloptes lonchophorus* Trouess. et Neum. (*Melirhophates leucostephus*, Nova Guinea).

Huius generis negligendae sunt, vel in alio genere inserendae haec species:

*Alloptes bisetatus* Trouess. (ex Hall.) sive *Alloptes crassipes*;  
*Alloptes Blaptis* C. et B. est *Canestrinia Blaptis*;  
*Alloptes Cerambicis* Can. est. *Canestrinia Cerambicis*;  
*Alloptes hastatus* Berl. est *Alloptes hemiphyllus*;  
*Alloptes palmatus* Can. est *Alloptes microphyllus*.

# GENUS XXIII. *Proctophyllodes* Robin 1877

Species huius generis europeae sic dividantur:

|                                                                                                          |                                                                                                 |                                     |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------|
| Penis longissimus, flagelliformis, posterius directus, usque ultra abdominis marginem posticum productus | Mas foliolis abdominalibus minimis ut in <i>Pr. stylifero</i> . . . . .                         | <b>Pr. glandarinus (K.) Rob.</b>    |
|                                                                                                          | Mas foliolis abdominis maioribus, longe rectangulis. . . . .                                    | <b>Pr. caulifer Trouess.</b>        |
| Penis parvulus styli-formis, vel mucroniformis, certe ab extremo abdomine apice sue valde remotus        | Mas foliolis abdominis maioribus, longe rectangulis; disculi copulationis longe clavati . . . . | <b>Pr. Ampelidis (Buchh.) Berl.</b> |
|                                                                                                          | Mas foliolis abdominis minutissimis; disculi copulationis subsexiles . . .                      | <b>Pr. stylifer (Buchh.) Hall.</b>  |

Species hucusque notae sunt :

*Proctophyllodes glandarinus* (Koch.) Rob. (super *Passeres*—Europa); *Proctophyllodes Ampelidis* (Buchh.) Berl. (*Passeres*—Europa); *Proctophyllodes stylifer* (Buchh.) Hall. (*Parus caeruleus*; *Turdus*—Europa). *Proctophyllodes arcuaticaulis* Trouess. (*Linota*, *Acanthis*—Europa).

*Proctophyllodes fenestralis* Trouess. (*Helianthea Bonapartei*—Nova Granata); *Proctophyllodes intermedius* Trouess. (*Eurylaimus ochromelas*—Malacca).

Neglige species sequentes :

*Proctophyllodes Alaudae* Hall. est *Pterodectes bilobatus*;  
*Proctophyllodes Buchholzi* Can. est *Pterolichus Buchholzi*;  
*Proctophyllodes caulifer* Trouess. idest *Pr. glandarinus*;  
*Proctophyllodes Colymbi* Can. appelletur *Pterolichus Colymbi*;  
*Proctophyllodes cylindricus* Rob. et Mègn. est *Pterodectes cylindricus*;  
*Proctophyllodes furcatus* Rob. et Mègn. (ex Koch.) foemina est ignotae speciei;  
*Proctophyllodes hemiphyllus* Rob et Mègn. sit *Alloptes haemiphyllus*;  
*Proctophyllodes microphyllus* Rob. et Mègn. sive *Alloptes microphyllus*;  
*Proctophyllodes Picae* Can. idest. *Proctophyllodes Ampelidis*;  
*Proctophyllodes profusus* Rob. et Mègn. est. *Proctophyllodes Ampelidis*;  
*Proctophyllodes rubeculmus* Hall. foemina *Proctoph. glandarini*?  
*Proctophyllodes rutilus* Hall. idest *Pterodectes rutilus*;  
*Proctophyllodes socialis* Rob, et Mègn. nec non Haller, quid est?  
*Proctophyllodes truncatus* Rob. et Mègn., cui speciei referendus?  
*Proctophyllodes Vanelli* Can. est *Pterolichus Vanelli*;



GENUS XXIV. *Pterodectes* Robin 1877

Sic in manipulos dividatur :

|                                                      |                                                                       |                                                                                          |
|------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Maris abdomen appendicibus auctum . . . . .          |                                                                       | <b>Pt. phyllophori</b>                                                                   |
| Maris abdomen appendicibus foliiformibus destitutum. | Pedes primi paris secundis crassiores, fusiformes vel tuberculigeri . | <b>Pt. manicati</b>                                                                      |
|                                                      |                                                                       |                                                                                          |
|                                                      | Pedes antiqui secundis sub-<br>similes                                | Ped. quarti par-<br>is tertiis multo robu-<br>stiores . . . . . <b>Pt. alioptiformes</b> |
|                                                      |                                                                       | Ped. quarti paris<br>tertiis crassitie sub-<br>similes . . . . . <b>Pt. obtusi</b>       |

MANIPULUS I. (*Pterodectes alioptiformes*)

Species exoticas continet.

*Pterodectes alioptinus* Trouess. (super *Aglaeactis cupripennis* — America); *Pterodectes Trogonis* Trouess. (Trogon, Trogonurus, Harpactes — America, Malesia); *Pterodectes selenurus* Trouess. (*Trochylidae* — America).

MANIPULUS II (*Pterodectes phyllophori*)

Excepto *Pterodectes Trouessarti* Berl. super *Lanius escubitor*, ceteri omnes extraeuropei sunt :

*Pterodectes trochilidarum* Trouess. super (*Trochilidas* — America); *Pterodectes xiphiurus* Trouess. (*Parisomus Dalhausiae* — Malacca); *Pterodectes gladiger* Trouess. (*Trochilidae* — America). *Pterodectes phylloproctus* Trouess. (*Podargus Papuensis* — Ins. Iobi); *Pterodectes gracillimus* Trouess. (*Ramphodon naevius* — Brasilia); *Pterodectes intermedius* Trouess. (*Elaena martinica*, *Loxigella noctis*, Guadalupa).

*Pterodectes securicatus* Trouess. et Neum. (*Mellirhophates leucostephus*, Nova Guinea); *Pterodectes reticulifer* Trouess. et Neum. (*Otocorys cornuta* — California); *Pterodectes pennifer* Trouess. et Neum. (*Notodela leucura* — Himalaya).

### MANIPULUS III. (*Pterodectes manicati*)

Tantum extraeuropei :

*Pterodectes Mainati* Trouesse. (Super *Eulabes javannensis*, *Eurylaimus ochromelas* — Malesia, *Lamprocolius glaucovirens*, *Corythaix macrorhyncha* — Gabon (1), *Ortygospiza polyzona* — Abyssinia (2)); *Pterodectes manicatus* Trouess. (*Glycyphila fasciata* — Australia);

### MANIPULUS IV. (*Pterodectes obtusi*)

Species europeae sic dividantur:

Maris lobuli abdominales rectanguli . . . **Pt. bilobatus Rob.**

|                                             |   |                                                                                                                           |                             |
|---------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Maris lobuli<br>abdominales ro-<br>tundati. | { | Humeri spina valida seta-<br>que longa aucti; derma scu-<br>torum dorsualium crasse areo-<br>lato punctatum . . . . .     | <b>Pt. cylindricus Rob.</b> |
|                                             |   | Humeri setis binis (ex qui-<br>bus una minor, exillior) arma-<br>ti; derma scutulorum dorsua-<br>lum subnitidum . . . . . | <b>Pt. rutilus Rob.</b>     |

Species huius manipuli sunt:

*Pterodectes bilobatus* Robin (super *Alaudas*, *Anthos*, *Coturnices* — Europa); *Pterodectes cylindricus* Rob. (*Corvus* — Europa); *Pterodectes rutilus* Rob. (*Hirundines* — Europa).

*Pterodectes maior* Trouess. (super *Memura superba* — Australia); *Pterodectes gracilis* Trouess. (*Psacoliis citrius*, *Xanthoura yncas*, *Cyanocorax pileatus* — Brasilia, *Milvulus tyrannus* — Nova Granata) (3); *Pterodectes paradisiacus* Trouess. (*Paradiseidae* — Nova Guinea, Australia); *Pterodectes megacaulus* Trouess. (*Nectarinia afra* — Senegal); *Pterodectes gracilior* Trouess. (*Trochylidae* — America).

(1) *Pt. trulla* Trouess.

(2) *Pt. bacillus* Trouess.

(3) Species dubia *Pt. crassus* Trouess. (super *Cyanocorax pileatus*).

## GENUS XXV. *Pterophagus* Megnin 1877.

Species unica huius generis hucusque dignoscitur sive:  
*Pterophagus strictus* Mégnin (super *Columbas* — Europa).

Familiae huius genera negligenda sunt :

**Cellularia** Montagù, Roberston etc. ex *hypopis* praecipue *Pterolichorum* constitutum.

*Cellularia Bassani* Montagù. cuius speciei nympha ?

» *Columbae* Roberston idest *hypopus Falcigeri rostrati*.

**Dermaleichus** Koch, (G. Canestrini, Buchholz, Michael etc.) idest *Analges* Nitzsch, speciebusque ex generibus pluribus huius familiae auctum.

*Dermaleichus acredulinus* Koch. (Buchh. etc.), quid est ?

- » *Actitidis* Can. sit. *Pterolichus Actitidis*;
- » *Ampelidis* Buchh. = *Proctophyllodes Ampelidis*;
- » *anatinus* Koch (Buchh.) etc = *Freyana anatina*;
- » *Anthi* Can. = *Pterodectes bilobatus*;
- » *attenuatus* Buchh. = *Protalges attenuatus*;
- » *Cerambicis* Can. = *Canestrinia Cerambicis*;
- » *Charandrii* Can. = *Pterolichus Charandrii*;
- » *chrysomelinus* Koch = An ex genere *Coleopterophagus* ?
- » *chrysomelinus* R. Can. = *Coleopterohagus Mégninii*;
- » *Columbae* Buchh. *Megninia Columbae*;
- » *Colymbi* Can. = *Pterolichus Colymbi*;
- » *compar* Koch = cui speciei adpropinquandus?
- » *corvinus* Koch (Buchh.) *Pterocolus corvinus*;
- » *Coturnicis* Can. = *Xoloptes claudicans*;
- » *crassipes* Can. = *Alloptes crassipes*;
- » *Cypseli* Can. = *Pterolichus securiger*;
- » *elongatus* Buchh. = *Pteronyssus picinus*;
- » *Fringillarum* Koch (Buchh.) = *Analges passerinus*;
- » *furcatus* Koch (Buchh.) *Proctophyllodes* sp. faem;
- » *Fürstembergi* Buchh. (Hall.) *Pterolichus Fürstembergi*;
- » *Gallinulae* Buchh. = *Megninia Gallinulae*;
- » *Glandarii* Buchh. = *Megninia Glandarii*;
- » *glandarinus* Koch (Buchh.) *Proctophyllodes glandarinus*;
- » *Haliaeti* Buchh. = *Pteronyssus fuscus*;
- » *heteropus* Mich. = *Freyana (Michaelichus) heteropus*;
- » *hirundinis* Can. = *Pterodectes rutilus*;
- » *Landoisii* Buchh. = *Anasicudion Landoisii*;
- » *lemnius* Koch. (Buchh.) = *Myobia* sp. (Prostigm.);
- » *Limosae* Buchh. = *Pterolichus Limosae*;
- » *Lyra* Can. = *Pterolichus (Crameria) lunulata* var *Lyra*;
- » *mucronatus* Buchh. = *Analges mucronatus*;
- » *musculinus* Koch (Buchh.) = *Myocoptes musculinus* (Lestrophoridae);
- » *Ninnii* Can. = *Pterolichus Ninnii*;



- Dermaleichus* Nisi Can. = *Pterolichus* Nisi;  
 „ *Numenii* Can. = *Pterolichus* *Numenii*;  
 „ *Ortygometrae* Can. = *Pterolichus* *Ortygometrae*;  
 „ *oscinum* Koch (Buchh.) = *Megninia* *Oscinum*;  
 „ *paleatus* Can. = *Pterolichus* *securiger*;  
 „ *palumbinus* Koch an ex genere *Cnemidocoptes*?  
 „ *parinus* Koch (Buchh.) = *Pteronyssus* *parinus*;  
 „ *passerinus* Koch (Buchh.) = *Analges* *passerinus*;  
 „ *Picae* Koch = an *Prothopyllodes* *Ampelidis*?  
 „ *Picimaiores* Buchh. = *Megninia* *serratilobata*;  
 „ *picinus* Koch (Buchh.) = *Pteronyssus* *picinus*;  
 „ *Porzanae* Can. *Pterolichus* *Porzanae*;  
 „ *Puffini* Buchh. = *Pteronyssus* *Puffini*;  
 „ *rostratus* Buchh. = *Falciger* *rostratus*;  
 „ *rosulans* Koch (Buchh.) = *Linocoptes* *Coccinellae* (*Ca-*  
*nestrinidae*);  
 „ *rubeculinus* Koch (Buchh.) quid est?  
 „ *sciurinus* Koch = *Glycyphagus* (*Homopus*) *sciurinus*  
*(Tyroglyphidae)*;  
 „ *Squatarolae* Can. = *Pterolichus* *Squatarolae*;  
 „ *stellaris* Buchh. = *Analloptes* *Stellaris*;  
 „ *Sternae* Can. et Fanz. = *Pteronyssus* *Puffini*;  
 „ *Strigis passerinae* Can. = *Pterolichus* (*Crameria*) *lu-*  
*nulatus*;  
 „ *Strigisoti* Buchh. = *Megninia* *Strigisoti*;  
 „ *stylifer* Buchh. (Kram.) *Proctophyllodes* *stylifer*;  
 „ *Totani* Can. = *Pterolichus* *Totani*;  
 „ *Vanelli* Can. = *Pterolichus* *Vanelli*.

**Dimorphus** Haller (Can. etc.) negligendum quia nomen pluries preoccupatum, ex *Megniniis*, *Pteronyssis* etc. constitutum.

- Dimorphus abbreviatus* Hall.(Can.) = *Pteronyssus* (*Mesalges*) *abbreviatus*;  
 „ *aculeatus* Hall. (Can.) = *Megninia* *aculeata*;  
 „ *Aluconis* Hall (Zimmermann) = *Megninia* *Aluconis*;  
 „ *appendiculatus* Hall. (Zimmermann) = *Megninia* *appendi-*  
*culata*;  
 „ *attenuatus* Hall. (Can.) = *Protalges* *attenuatus*;  
 „ *asternalis* Hall. (Can.) = *Megninia* *asternalis*;  
 „ *calcaratus* Hall. (Can.) = *Megninia* *calcarata*;  
 „ *centropodos* Hall. (Can.) = *Megninia* *centropodos*;  
 „ *Columbae* Hall. (Can.) = *Megninia* *Columbae*;  
 „ *cubitalis* Hall. (Can.) = *Megninia* *cubitalis*;  
 „ *forcipatus* Hall. (Can.) = *Megninia* *forcipata*;  
 „ *fuscus* Hall. (Can.) = *Pteronyssus* *fuscus*;  
 „ *Gallinulae* Hall. (Can.) = *Megninia* *Gallinulae*;  
 „ *giglymurus* Hall. (Can.) = *Megninia* *giglymura*;  
 „ *gladiator* Hall. (Can.) = *Megninia* *gladiator*;  
 „ *Glandarii* Hall. (Can.) = *Megninia* *Glandarii*;  
 „ *gracilis* Hall. (Can.) = *Pteronyssus* *picinus*;  
 „ *Haliaeti* Hall. (Can.) = *Pteronyssus* *fuscus*;  
 „ *minutus* Hall. (Zimmermann) = *Dermation* sp. (*Epider-*  
*moptidae*);  
 „ *Oscinum* Hall. (Zimmermann) = *Megninia* *Oscinum*;  
 „ *parinus* Hall. (Zimmermann) = *Pteronyssus* *parinus*;



- Dimorphus Picimajoris* Hall. (Zimmermann) = *Megninia serratilobata*;  
 » *Puffini* Hall. (Zimmermann) = *Pteromyssus Puffini*;  
 » *serratilobatus* Hall. (Zimmermann) *Megninia serratilobata*;  
 » *Stellaris* Hall. (Zimmermann) = *Analloptes Stellaris*;  
 » *Sternae* Hall. (Can.) = *Pteronypus Puffini*;  
 » *Strigisoti* Hall. (Can.) = *Megninia Strigisoti*;  
 » *Tyrelli* Hall. (Can.) = *Megninia Tyrelli*;  
 » *Urogalli* Hall. (Nörner) = *Pterolichus Urogalli*;  
 » *velatus* Hall. (Nörner) = *Megninia velata*;

**Hypodectes** Filippi ex hypopis Analgesidarum genus constitutum quorum excepto *H. columbae* adultus non innotescit.

- |                             |           |                                  |
|-----------------------------|-----------|----------------------------------|
| <i>Hypodectes Alcedinis</i> | Filippi   | } adulto ignoto;                 |
| » <i>nycticoracis</i>       | »         |                                  |
| » <i>garzettae</i>          | »         |                                  |
| » <i>strigis</i>            | »         |                                  |
| » <i>Columbae</i>           | Slosarcki | = <i>Falcigeri rostrati</i> hyp; |

**Hypoderas** Frauenf. idem quam *Hypodectes*;

**Paralges** Trouess. et Mègn. et Trouess. et Neum. idest *Dermoglyphus*;

- Paralges deformis* Trouess. et Neum. = *Dermoglyphus deformis*;  
 » *maior* Trouess. et Neum. = *Dermoglyphus maior*;  
 » *pachycnemis* Trouess. et Neum. = *Dermoglyphus pachycnemis*;  
 » *pteronyssoides* Trouess. et Neum. = *Dermoglyphus pteronyssoides*;
-

## FAMILIA IV. LISTROPHORIDAE

(TAB. XI.)

*Corpus varie conformatum, vel breve, rhombeum, vel elongatum, compressum aut depressum, scuto chitineo antico, vel scutis nullis praeditum.*

*Rostrum vel normale, vel maxillis in organis peculiaribus ad pilos hospitis amplexandos deformatis; mandibulae cheligerae, minores.*

*Pedes omnes ambulacrati, normales, vel in organis ad pilos hospitis amplexandos varie deformati, tunc ambulacris destituti. Ambulacra late foliacea, unco vel uncis nullis.*

*Disculi genitales quatuor numero plerumque manifestiores. Adsunt plerumque etiam disculi copulationis.*

*Anus in postico ventre apertus.*

*Dimorphismus sexualis in pedum fabrica et abdominis postici sat manifestus.*

*Hypopi non dignoscuntur.*

*Ovipari (?)*

*Habitant super mammalia.*

Familia haec in subfamiliis duabus est dividenda, secundum Trouessarti consilium, quod Listrophori pedibus simplicibus maxillisque abnormibus gaudeant, caeteri autem pedibus cuiusdam paris deformati, maxillis simplicibus sint praediti.

Omnes vero organa quaedam praebent ad pilos hospitis amplexandos conformata, sive maxillae, sive pedes alicuius paris; caeterum a familiis omnibus mox distinguuntur.

**Corpus** vel breviter ovale, vel valde elongatum est. In speciebus nonnullis (*Listrophorus*, *Labidocarpus*, *Schizocarpus*) etiam valde compressum, quare species istae gibbosulae sunt et supinae vel pronae difficiliter conspici possunt.

**Derma** molle est, sed in generibus supradictis scuta aliquot sunt, praecipue in antico, ad dorsum, duriora et obscuriora, saepius quasi epistoma vel tectum supra rostrum extensa, punctulata. In ventre quoque epimera in scutis duris plus minusve dilatantur.

**Rostrum** in subfamilia Chirodiscinarum simplex, normale, minusculum; in familia Listrophoridarum maxillis abnormibus, sive dilatatis foliaceis, convolutis, intersere forcipem quemdam ad pilos hospitis amplexandos, deformatum.

Videas de hoc melius ad gen. *Listrophorus*.

**Pedes** mediocres vel parvi, in Listrophoris, secundi paris ceteris minores, omnes in utroque sexu intersese magnitudine subpares, bene ambulacрати, normales sunt. In caeteris generibus ex familia Chirodiscidarum, vel primum par (*Chirodiscus*) vel primum et secundum (*Labidocarpus*, *Schizocarpus*), vel tertium aut tertium et quartum (*Myocoptes*) dilatantur, et quasi in laminas deformatantur aut aliter modificantur, ad forcipem sistendum ut hospitis pili amplexari possint.

**Ambulacra** vel nulla (in pedibus deformatis), vel minora ex membranula subrotundata, uncis nullis constituta.

**Disculi genitales** adsunt in utroque sexu clavati, ad genitalium margines conspicui.

**Disculi copulationis** plerumque praesentes.

**Penis** mediocris conicus, inter posticos pedes plerumque insitus.

**Vulva** ventralis bilabiata.

**Anus** semper ventralis.

**Dimorphismum sexuale** sat manifestum, praecipue quod mares abdomine postice varie fabricato quam in foeminis suis sint conspicui, et pedibus quoque varient, quamvis minus.

**Hypopi** in hac familia non dignoscuntur.

**Ovipari** videntur esse huius familiae acari.

**Habitant** super Mammalia, praecipue super rodentia, inter corporis pilos inquirendi, pilis iisdem arcte adnexi, tamen a *Cheyletiellis* inquisiti et devorati.

## Explicatio tab. XI.

- Fig. 1. *Listrophorus Pagensteker* Hall. mas. supinus;  
 Fig. 2. " " " foem. supina;  
 Fig. 3. *Labidocarpus Rollinati* Trouess. mas. supinus;  
 Fig. 4. " " " foem. supina.

### SUBFAMILIAE LISTROPHORIDARUM

Familia haec in subfamiliis duabus dividit Cl. Trouesart, sive:

- |                                                     |                      |
|-----------------------------------------------------|----------------------|
| Maxillae abnormes, sive ad pilos hospitis ample-    |                      |
| xandos deformatae . . . . .                         | <b>Listrophorina</b> |
| Maxillae normales (ut in caeteris Sarcopitidis con- |                      |
| formatae) . . . . .                                 | <b>Chirodiscina</b>  |

### SUBFAMILIA LISTROPHORINA

Unicum genus hucusque notum continet: *Listrophorus* Pagenst.

### SUBFAMILIA CHIRODISCINA

Sic in genera dividatur:

- |                                                       |                  |
|-------------------------------------------------------|------------------|
| Pedes tertii et quarti paris ad pilos hospitis ample- |                  |
| xandos deformati . . . . .                            | <b>Myocoptes</b> |

- |                                                                                                     |   |                                                                                                     |
|-----------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------|
| Pedes tertii et<br>quarti paris ungui-<br>culis tantum auc-<br>ti; disculi copula-<br>tionis nulli. | { | Ambulacra con-<br>spiciuntur in pedi-<br>bus primi et se-<br>cundi paris . . . <b>Campylochirus</b> |
|                                                                                                     | { | Ambulacra in pe-<br>dibus primi et se-<br>cundi paris nulla <b>Chirodiscus</b>                      |

- |                                                           |   |                                                                                                                                        |
|-----------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------|
| Pedes tertii et<br>quarti paris sim-<br>plices, normales. | { | Extremum seg-<br>mentum pedum<br>primi et secundi<br>paris in laminulis<br>binis, approxima-<br>tis bipartitum . . <b>Schizocarpus</b> |
|                                                           |   | Pedes tertii et<br>quarti paris, mem-<br>branula ambula-<br>crali aucti; discu-<br>li copulationis<br>praesentes.                      |



## GENUS I. *Listrophorus* Pagenstecher 1861

Species in Europa collectae haec sunt:

Abdomen maris in caudam longiorem, cylindricam,  
apice bipartitam postice productum (*Lepus*) . . . **L. gibbus Pag.**

|                                               |   |                                                                                 |   |                                                                       |                               |
|-----------------------------------------------|---|---------------------------------------------------------------------------------|---|-----------------------------------------------------------------------|-------------------------------|
| Abdomen maris postice subrotundato-truncatum. | { | Clypeus (sive hypostoma) antierius subacutum, curte bipilum ( <i>Arvicola</i> ) | { | Maris abdomen postice subacutum, vix incisum ( <i>Mustela</i> ) . . . | L. <b>Leukarti Pag.</b>       |
|                                               |   |                                                                                 |   |                                                                       |                               |
|                                               | { | Clypeus antierius recte truncatum, vel excavatum, impilum.                      | { | Maris abdomen postice bene bifidum ( <i>Sciurus</i> ) . . .           | L. <b>Pagenstecheri Hall.</b> |
|                                               |   |                                                                                 |   |                                                                       |                               |

Species huius generis hucusque notae sunt:

*Listrophorus gibbus* Pagenstecher (super *Lepus timidus*; Europa); *Listrophorus Leukarti* Pag. (*Arvicola amphibius*; Europa); *Listrophorus Mustelae* Mégnin (*Mustela vulgaris*; Europa), *Listrophorus Pagenstecheri* Haller (*Sciurus europaeus*; Europa).  
*Listrophorus cucullatus* Trouessart (*Mus decumanus*; Asia).

## GENUS II. *Myocoptes* Claparède 1868

Haec sunt species omnes in Europa compertae:

Mas disculis copulationis nullis, abdomine postice longe quadriseto (*Arvicola*) ; . . . . . **M. tenax Mich.**

|                                                                                             |   |                                                                            |   |                                                                                                                                      |                                                                                                     |
|---------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Mas disculis copulationis conspicuis, abdomine postice setis longis tantum duabus praedito. | { | Mas pedibus quarti paris tertiis multo minoribus abdomen non superantibus. | { | Mas abdomine postice bene bilobus ( <i>Myoxus glis</i> ).<br>Mas abdomine postice truncato, vix arcuato. ( <i>Cricetus</i> ) . . . . | M. <b>musculus (Koch) Clap.</b><br><b>glirinus Can.</b><br><b>Myocoptes Oricae-ti (Poppe) Berl.</b> |
|                                                                                             |   |                                                                            |   |                                                                                                                                      |                                                                                                     |

**Species ergo sunt:**

*Myocoptes musculus* (Koch) Claparède (super *Mus musculus*; Tota Europa); *Myocoptes glirinus* Canestrini (*Myoxus glis*; Italia); *Myocoptes tenax* Michael (*Arvicola arvalis*; Britannia, Gallia); *Myocoptes Cricaeti* Poppe (*Cricaetus frumentarius*; Germania).

**Huius familiae negligenda sunt:**

Genus **Haptosoma** Kramer 1896, pro *H. truncatum* constitutum, quae species synonyma est speciei:

*Schizocarpus Migaudi* Trouess., uno tantum mense antea descriptae.

Genus **Histiophorus** Friedrich 1896, pro *Histioph. Castoris* constitutum; quod etiam uno mense post memoriam Trouessarti publico jure factam in lucem editum est, et *Histiophorus Castoris* idem est quam *Schizocarpus Migaudi*.

Genus **Oriniscansor** Poppe, idest *Myocoptes* Claparède.

### GENUS III. **Labidocarpus** Trouessart 1895

**Species huius generis in Europa compertae sunt, sive:**

Pedes tertii paris biungues; 350  $\mu$ . . **L. Rollinati** Trouessart.

Pedes tertii paris triungues; 800  $\mu$ . . **L. megalonyx** Trouessart.

Ambae species haec super *Rhynolophum ferrum-equinum* sunt collectae.

### GENUS IV. **Schizocarpus** Trouessart 1896

Unica species huius generis, sive *Schizocarpus Migaudi* Trouessart super *Castor fiber* extra Italiam est collecta.

### GENUS V. **Chirodiscus** Trouessart 1893

Species plures dignoscuntur huius generis, secundum Trouessart, omnes extraeuropeae, ex quibus unam tantum auctor ille descripsit, sive *Chirodiscus amplexans* Trouessart, super *Anomalurus erythronotus*, (Africa) collectam.

### GENUS VI. **Campylochirus** Trouessart et Neumann 1890

Unica species huius generis, *Campylochirus adhaerens* Trouess. et Neum. super *Marsupialia* Australiae est collecta.

## FAMILIA V. CANESTRINIDAE

(Tab. XII.)

*Corpus ovale vel subrhombeum. Derma tenuissime striatum, scutis chitineis nullis vel subaevanidis.*

*Rostrum normale, mandibulis cheligeris vel articulo postremo (Linocoptes) serrulato.*

*Pedes omnes ambulacrati, intersese subpares, vel quarti paris in mari vix caeteris crassiores. Ambulacra semper membranula lata, foliacea, et unco medio conspicuo constituta.*

*Disculi genitales semper adsunt, quatuor numero, claviformes, circa genitalia conspicui.*

*Disculi copulationis aliquando deficiunt.*

*Anus in postico ventre apertus.*

*Dimorphismum sexuale, propter abdominis postremi fabricam pedumque posticorum crassitie aliquando manifestum.*

*Hypopi non dignoscuntur.*

*Ovipari; habitant super insecta (coleoptera), haud parasiti.*

**Familia haec ab Analgesidis distinguitur, praecipue disculis genitalibus bene evolutis.**

**Derma** molle est, raro scutis auctum, quod in cephalothorace *Linocoptis Coccinellae* videbis, in caeteris generibus scuta nulla sunt, et derma totum tenuissime striatum, vel punctulatum adparet. Abdomen semper nudum. Setulae corpus adornantes semper simplices.

**Corpus** ovale est, plus minusve rhombeum, sive bene humeratum, postice subacutum vel rotundatum, vel subtruncatum. Sulcus thoraco-abdominalis ad dorsum semper bene manifestum.

**Rostrum** conicum, mediocre est. Mandibulae mala robusta sunt terminatae in omnibus generibus, excepto genere *Linocoptes* in quo mandibulae biarticulatae, articulo postremo inferne serrulato gaudent.

**Pedes** mediocres, intersese subsimiles, tamen in *Canestrinia Blaptis* et *C. Cerambicis* mas pedibus quarti parissat incrassatis est praeditus.

**Ambulacra** omnium generum membranula lata foliiformi, ovali, cuius in medio unguis exoritur, totus membranula eadem involutus, sed manifestus, sunt constituta.

**Disculi genitales** quatuor numero sunt, semper manifestiores, clavatulique iuxta genitalia dispositi.

**Disculi copulationis** sunt in genere *Canestrinia*, in caeteris generibus nulli.

**Penis** mediocris, unciformis, rectus, vel recurvus, in medio ventre conspicuus.

**Vulva** ventralis, bilabiata.

**Anus** semper ventralis.

**Dimorphismum** sexuale etiam abdominis postici fabrica manifestum est in *Canestrinia Cerambicis* et *C. Giardi*; in *C. Blaptis* tantum pedum posticorum crassitie.

**Hypopi** non dignoscuntur in hac familia.

**Ovipari** sunt acari huius familiae hucusque noti.

**Habitant** acari isti super insecta (*Coleoptera*) non tamen parasitae sex ex humoribus insectorum, quod videtur, victitantes; plerumque sub elithris absconditi, vel (*Canestrinia Blaptis*) super pectus insectorum numerosi, ovis, pullis etc. Excepto genere *Linocoptes*, naturalis familia est.

## Explicatio tabulae XII.

- Fig. 1. *Canestrinia Blaptis* foem. supina;  
 Fig. 2.       "       "       mas supinus;  
 Fig. 3. *Linocoptes Coccinellae* foem. supina;  
 Fig. 4.       "       "       mas supinus.

### GENERA CANESTRINIDARUM

Familia haec sic in generibus subdividi potest:

|                          |   |                                                      |                                   |
|--------------------------|---|------------------------------------------------------|-----------------------------------|
| Mandibulae<br>cheligerae | { | Adsunt in mari disculi copu-<br>lationis . . . . .   | <b>Canestrinia Berl.</b>          |
|                          |   | Deficiunt omnino disculi copu-<br>lationis . . . . . | <b>Coleopterophagus<br/>Berl.</b> |
|                          |   | Mandibulae apice in serrulam desinentes . . .        | <b>Linocoptes Berl.</b>           |



GENUS I. **Canestrinia** Berlese 1880

Sic huius generis species dividas:

|                                              |   |                                                                                                                                                             |                                   |
|----------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| Abdomen maris postice acutum vel bipartitum. | { | Corpus in utroque sexu plus quam duplo longius quam latum ( <i>Ceramix</i> )                                                                                | <b>C. Cerabiceis (Can.) Berl.</b> |
|                                              |   | Corpus in utroque sexu fere aequale longum ac latum ( <i>Chrysomela</i> )                                                                                   | <b>C. Giardi Trouessart</b>       |
|                                              |   | Pedes omnes crassitie interese subpares (in mari)                                                                                                           |                                   |
|                                              |   | <div> <div> Maris abdomen postice truncatum, penis runctim recurvus (<i>Dorcus parallelepipedus</i>) . . . . . </div> <div> C. doricola Berl. </div> </div> |                                   |
|                                              |   | <div> <div> Maris abdomen postice rotundatoangulatum; penis rectus (<i>Procrustes coriaceus</i>) . . . . . </div> <div> C. Procrusti Berl. </div> </div>    |                                   |

Species supradictae nec non *C. doricolae* var. *Pentodontis* n. var. (super *Pentodon punctatus*), in Italia sunt inventae, excepta *C. Giardi Trouessart* (super *Chrysomelam rubiginosam*) in Gallia collecta.

GENUS II. **Coleopterophagus** Berlese 1882

Duas species huius generis inveni in Italia, neque alibi sunt compertae; haec sunt:

|                                                                                                                  |                            |
|------------------------------------------------------------------------------------------------------------------|----------------------------|
| Abdomen (in utroque sexu) posterius leniter bilobatum, quoque lobulo longe tripilo ( <i>Cetonia florentina</i> ) | <b>C. Megninii Berl.</b>   |
| Abdomen (in utroque sexu) posterius recte truncatum, in angulis bipilum ( <i>Carabus cancellatus</i> )           | <b>C. carabicola Berl.</b> |

GENUS III. **Linocoptes** Berlese 1884

Unica huius generis species, in Europa est comperta, iam de tempore, quae appellanda est *Linocoptes Coccinellae* (*Scapoli*) Berlese, super *Linam Populi* occurrentem (Austria, Germania, Italia).

## FAMILIA VI. TYROGLYPHIDAE

(Tabb. XIII - XIV - XV)

Corpus plus minusve ovale, plerumque posterius rotundatum vel subtruncatum. Derma fere semper molle, exillime striatum ita ut striae difficiliter adpareant, rarius punctulatum vel tuberculatum. Abdomen in dorso omnino nudum, et cephalothorax plerumque sculis dorsualibus caret.

Rostrum normale, saepius mandibulis curte cheligeris, in genere *Histiostoma serruliformibus*.

Pedes mediocres, omnes ambulacratii (excepto mari omeomorpha generis *Rhyzogiypus*). Ambulacra unico ungue semper aucta, vel minimo (*Glycypagus*), vel maiori, nec non membranula plus minusve evoluta praediti.

Disculi genitales numero quatuor, rarissime evanidi (species paucae gen. *Glycypagus*), plerumque claviformes, vel sexiles, perconspicui circa genitalia.

Disculi copulationis in pluribus generibus praesentes.

Anus in postico ventre apertus.

Adest nymphea hypopialis in fere omnibus generibus nota.

Dimorphismum sexuale rarum, sive pedibus varie in maribus, quam in foeminis, conformatis conspicuum (*Rhyzoglyphus*), vel rarissime abdomine dispari (*Histiogaster*).

Ovipari.

Liberi sunt acari huius familiae, in putrescentibus vel super cibaria vel in quisquiliis aut detritis, in colonias aliquando numerosissimas viventes, lentissime deambulantes, pigri.

**Derma** permolle est, exepitis paucis speciebus ex genere *Glycypagus*, in quibus duriusculum est et tuberculis, *Epicriorum* more, passim dissitis auctum. Epiderma autem tenuissime vel vix sensim striatum est, certe striis exilioribus, subevanidis. In speciebus generis *Rhyzoglyphus*, *Anticum*, tamen in dorso, scuto trigono, robusto augitur, *Anal-*

*gesidarum* ritu, caeterum vel striae chitineae duae ad latera verticis stant, super pedum originem excurrentes, quas optime in *Trichotarso Xylocopae* videbis, vel totum nudum Anticum est.

Setulae corpus adornantes plerumque simplices, variae longitudinis sunt; aliquando etiam plumosulae, vel longe barbatulae vel laminiformes, flabelliformesve, quod rarius est.

**Corpus** ovale, antice subacutum, postice rotundatum vel rotundato — truncatum, lateraliter humeris plerumque bene prominulis. Sulcus dorsualis transversus, (exceptis *Glycyphagis*) corpus in partes duas dividit, anterior anticum, posterior abdomen. Sulcus iste, satis etiam ad ventrem est manifestus.

*Anticum* trigonum est, anterius subacutum.

*Abdomen* excepto *Histiogaster carpio*, semper postice rotundatum vel subtruncatum, in appendices haud productum.

**Rostrum** conicum, mediocre est, subinferum. Mandibulae chela robusta sunt auctae, digitis duabus constitutae, in fere omnibus generibus, sed in genere *Histiostoma* mandibulae unidigitatae, in serrulam perlongam productae sunt, inferne denticulatam.

In genere *Linocoptes* digitus unicus, inferne serrulatus, super mandibulae eiusdem corpus deflecti potest. Palpi parvuli, cylindrici sunt, in generibus omnibus, sed in *Histiostoma* biarticulati, articulis primo et secundo latiusculis, membranula hyalina marginatis, articulo postremo longe piliformi.

**Pedes** mediocres, intersese fere magnitudine et crassitie pares, tamen in maribus nonnullarum specierum (*Aleur. Farinae*, *Rhyzoglyphus echinopus*) pedes primi vel tertii paris incrassati sunt, et in *A. Farinae* (mari) etiam primi paris articuli secundus et tertius calcaribus vel tuberculis auguntur.

**Tarsus** vel mediocris, vel longior est, et in *Glycyphagis* (*G. spinipes*, *G. domesticus*) nonnullis elongatissimus. In speciebus nonnullis tarsi primi et secundi paris, prope basim ad dorsum, appendicula quadam clavatula, quae organum tactile consideratur, sunt aucti, et spinis vel setulis ad apicem praediti.

*Ambulacra* semper ungue unico sunt armata, et plerumque etiam membranula hyalina plus minusve evoluta constituuntur.



Unguis autem vel minimus, vix conspicuus est, in membranula ampulliformi insitus (*Glycyphagus domesticus*, *G. spinipes*) vel mediocris, ex eadem membranula late foliacea exortus (*Carpoglyphus passularum*) vel in tarsi apice insitus, maior, membranula mediocri basi involutus (*Tyroglyphus*), vel maximus membranula nulla auctus (*Rhyzoglyphus*).

Ambulacra ungue nullo, et membranula longe pedunculata, vere ut in sarcoptidis sunt in genere *Hemisarcoptes* et ungue longe pedunculato conspiciuntur in genere *Lentungula*, in generibus autem istis, tarsus apice in unguem robustum desinit.

**Disculi genitales** quatuor numero sunt, rarissime evanidi (in nonnullis speciebus generis *Glycyphagus*, nec non in *Lentungulis* etc.) plerumque breviter claviformes, circa genitalia distributi, vel in ventre dissiti, quod videbis in genere *Histiostoma*.

**Disculi copulationis** maris, in generibus nonnullis (*Glycyphagus*, *Histiostoma* (1) etc.) deficient, in aliis manifestiores et maiores, rotundi, sexiles vel longe pedunculati (*Chortoglyphus*) sunt post anum conspicui.

**Genitalia** semper ventralia sunt. *Vulva* vel pectoralis (*Trichotarsus*) vel abdominalis est, rima longitudinali, bene labiata, significata, rarissime circini chitineo arcuato anteriorius praedita, quod est tantum in vulvis pectoralibus et vitta chitinea haec epimera cephalothoracis intersese coniungit.

*Penis* unciformis, rectus vel arcuatus, semper mediocris, in foveola labiata infossus.

In mari sunt etiam aliquando (*Tyroglyphus*) disculi duo adhaesionis in tarso posticorum pedum, ad foeminam in coitu retinendam.

**Anus** semper ventralis est, post genitalia in ventre apertus, labiis duabus circumdatus, rimaeformis.

**Dimorphismum** sexuale manifestum est in speciebus nonnullis ex generibus *Aleurobius* (*A. Farinae*), *Rhyzo-*

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(1) In *Histiostoma finetario* mari, sunt tamen clavunculae quatuor circa penem quae disculos genitales esse videntur, ceteri quatuor disculi pectorales, adaccessorii dicti sunt, quia forsitan cum genitalibus et cum copulationis non conveniunt.



glyphus, *Histiogaster*, *Glycyphagus* (*Gl. dispar*) et propter pedum crassitiem, aut abdominis fabricam conspicuum. Sunt etiam mares polymorphici, sive foeminis suis subsimiles (*homomophi*, videas *Rhyzoglyphus echinopus*) aut satis a foeminis diversi, praecipue pedibus alicuius paris crassioribus (*heteromorphi*). Mares autem inter sese valde statura variant, quod ego vidi in *Histiostomis* et in *Rhyzoglypho echinopodo*.

**Hypopi**, sive nymphae migrantes, characteribus suis tribus generibus pertinent, quae sunt.

*Hypopus* sive nymphae specierum generis *Tyroglyphus*, *Histiostoma*, ambulacris ungue et membranula constitutis, labio apice bisetigero, disculis adhaesionis inguinalibus pluribus, rotundatis;

*Homopus*, sive nymphae specierum generis *Glycyphagus*, disculis adhaesionis nullis; ambulacris ungue minori tantum constitutis;

*Trichodactylus*, ambulacris ungue maximo, membranula nulla, pedibus posticis in setam desinentibus, disculis adhaesionis inguinalibus maioribus; haec sunt nymphae migrantes generis *Trichotarsus*.

**Habitant** acari huius familiae liberi, numquam parasitae. Tamen nonnullae species generis *Glycyphagus* in nidis aliorum animalium sunt, vel vertebratorum vel insectorum, et tunc adultos supra hospites cum hypopis invenies, sive *Glycyph. peregrinans* super *Xylocopam violaceam* saepe colligendus; *Gl. pterophorus* super vespertiliones; *Gl. dispar*, *Gl. Talpae* etc. in nidis *Talpae europaeae* etc., numquam tamen parasitae.

Ceteras species invenies in putrescentibus, in detritis, in foeno, super cibaria vel fructus exiccatos et diutius asservatos, in farina etc.

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### Tab. XIII.

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| Fig. 1. | <i>Lentungula algivorans</i>     | foem. supina. |
| Fig. 2. | „                                | mas supinus.  |
| Fig. 3. | <i>Haemisarcoptes coccisugus</i> | mas supinus.  |
| Fig. 4. | „                                | foem. supina. |
| Fig. 5. | <i>Chortoglyphus arcuatus</i>    | mas supinus.  |
| Fig. 6. | „                                | foem. supina. |

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- Fig. 1. *Tyroglyphi* cuiusdam foemina supina.  
 Fig. 2. „ „ mas supinus.  
 Fig. 3. *Rhyzoglyphi echinopodi* mas homeomorphus supinus.  
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- Fig. 1. *Histiogaster carpio* mas supinus.  
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 Fig. 4. *Glycyphagus domesticus* foem. supina.  
 Fig. 5. *Histiostoma Berghii* mas supinus.  
 Fig. 6. „ „ foem. supina.

## SUBFAMILIAE TYROGLYPHIDARUM

Familia haec sic in subfamiliis dividi potest:

|                                         |                                                   |                                                                 |                       |
|-----------------------------------------|---------------------------------------------------|-----------------------------------------------------------------|-----------------------|
| Ambulacra longius pedunculata . . . . . |                                                   | <b>Lentungulina</b>                                             |                       |
| Ambulacra sexilia                       | Adsunt in mari disculi copulationis manifestiores | Ambulacrum ungue maiori, membranula subevanida . . . . .        | <b>Tyroglyphina</b>   |
|                                         |                                                   | Ambulacrum membranula latiori, trigona, ungue medio minimo .    | <b>Chortoglyphina</b> |
|                                         | Deficiunt in mari disculi copulationis            | Mandibulae cheligerae, chela curta, digitis subaequalibus . . . | <b>Glycyphagina</b>   |
|                                         |                                                   | Mandibulae inserulam desinentes, haud chelatae . .              | <b>Histiostomina</b>  |

## SUBFAMILIA HISTIOSTOMINA

Haec continet genus unicum *Histiostoma*.

## SUBFAMILIA LENTUNGULINA

Sic in genera duo subdividatur:

Ambulacra tantum ungue terminata . . . . . **Lentungula**  
 Ambulacra tantum membranula terminata . . . . . **Hemisarcoptes**

## SUBFAMILIA GLYCYPHAGINA

Huius subfamiliae haec sunt genera:

|                                    |   |                                                 |                   |                                    |   |                          |   |              |                  |
|------------------------------------|---|-------------------------------------------------|-------------------|------------------------------------|---|--------------------------|---|--------------|------------------|
| Ambulacra<br>ungue maiori<br>aucta | { | Dimorphismum sexuale in pedum crassitie manife- | {                 | stissimum . . . . .                | { | Maris disculi            | { | Hericta      |                  |
|                                    |   | Dimorphismum                                    |                   | Adest sulcus thoraco - abdominalis |   | genitales incon-         |   | Trichotarsus |                  |
|                                    |   |                                                 |                   | sexuale (in pe-                    |   | perconspiciuus . . . . . |   |              | spicui . . . . . |
|                                    |   |                                                 |                   |                                    |   | Sulcus thoraco           |   |              | Maris disculi    |
|                                    |   | abdominalis nullus                              | genitales conspi- | Carpoglyphus                       |   |                          |   |              |                  |
|                                    |   |                                                 | cui . . . . .     |                                    |   |                          |   |              |                  |

Ambulacra ungue minimo, subevanido, membranula ampulliformi mi-  
 nuscula . . . . . **Glycyphagus**

## SUBFAMILIA TYROGLYPHINA

Sic dividatur in genera:

|                                     |                                               |                                                           |                                                                |                                     |              |                                         |            |                 |
|-------------------------------------|-----------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|-------------------------------------|--------------|-----------------------------------------|------------|-----------------|
| Maris abdo-                         | {                                             | Maris abdomen postice appendice trigona, foliolas quatuor | {                                                              | gerentl, praeditum . . . . .        | {            | Histiogaster.                           |            |                 |
|                                     |                                               | Mares heteromorphi pedibus                                |                                                                | Mares pedibus                       |              | tertiis crassiores, calcarati . . . . . | Aleurobius |                 |
|                                     |                                               | tertiis paribus incrassatis . . . . .                     |                                                                |                                     |              |                                         |            | Rhyzoglyphus.   |
|                                     |                                               | Maris abdomen postice rotundatum, non appendiculatum.     |                                                                |                                     |              |                                         |            | tertiis paribus |
| quartis et secundis similes,        | Maris pedes omnes iisdem foeminae subparibus. |                                                           | Maris abdomen postice scutulo duro apicali protectum . . . . . |                                     |              |                                         |            |                 |
| iisdemque foeminae crassitie pares. |                                               |                                                           |                                                                | Maris abdomen totum nudum . . . . . | Tyroglyphus. |                                         |            |                 |

## SUBFAMILIA CHORTOGLYPHINA

Duo genera continet, sive:

Vulva arcuatim transversa; maris tarsus quarti  
 paris externe tuberculis copulatoriis duobus praeditus. **Chortoglyphus**

Vulva angulatim sublongitudinalis, maris tarsus  
 quarti paris tuberculis copulatoriis nullis . . . . **Mealia.**



GENUS I. *Histiostoma* Kramer 1876

Species huius generis hucusque notae sunt :

Corporis setae late lanceolato-foliaceae. . . . . *H. phyllothrichum* Berl.

Corporis setae sex dorsuales longius flagelliformes . . . . . *H. flagellifer* Leon.

Corporis setae (in dorso) plures, crasse et longae spinosae, praecipue ad latera abdominis et in dorso postico . . . . . *H. pulchrum* Kram.

Palporum seta terminalis, corporis latitudine certe longior. . . . . *H. fimetarium* O. et B.

Ambulacra pedum omnium ungue et membranula biloba, bene expansa, constituta . . . . . *H. muscarum* (L.) Berl.

Corporis setae minimae, brevissimae, rarissimae, rarius ornatum. . . . . *H. Berghii* Ien. sen.

Ambulacra tantum unco constituta. . . . . *H. rostratoserratum* (Megn.) Berl.

Secundum nympharum hypopialium fabricam sic species supradictae dividi possunt, exceptis tamen *H. phyllo-thicho* (1) et *H. pulchro* quorum hypopi non dignoscuntur.

Pedes postici (4<sup>i</sup>) ungue omnino destituti et seta corporis longitudinem valde superanti praediti (super *Cyrtoneura stabulans*) . . . , . . . **Hyp. H. muscarum**

Deficiunt disculi adhaesionis pectorales, adsunt tantum postabdominales (decem numero) (super insecta fimicola plura) . . . . **Hyp. H. fimetarii**

Pedes postici unguiculati, seta mediocri vel subnulla praediti.

Adsunt disculi pectorales

Disculi pectorales in paria tria dispositi, quodque par pedibus 2<sup>i</sup>, 3<sup>i</sup>, 4<sup>i</sup> paris coxae contiguum; in nidis annellidarum (*Anulastomum gulo*) . . . . **Hyp. H. Berghii**

Disculi pectorales in paria duo dispositi, sive ad coxas pedum secundi et tertii paris (super insecta varia in putrescentibus obvia) **Hyp. H. rostro serrati**

Negligas :

*Histiostoma Feroniarum* Can., quia *H. rostro serrati* synonymum et dubium est an *Hypopus Feroniarum* Duj huic pertineat speciei.

## GENUS II. **Haemisarcoptes** Lignières 1893

Unica species huius generis hucusque nota est.

*Haemisarcoptes coccisugus* Lign. (Gallia, Italia) :

## GENUS III. **Lentungula** Michael 1893.

Unica huius species est *Lentungula algivorans* in Europa septentrionali (Curiosolitae) collecta a cl. Michaelio generis huius auctore.

(1) Forsitan huic speciei pertinet hypopus quidam cum adulto collectus, *Hyp. fimetarii* similis sed setulis longis, subspiniformibus ad latera corporis praeditus, in fimetis collectus.

#### GENUS IV. **Chortoglyphus** Berlese 1884.

Unica huius generis species nota est:

*Chortoglyphus arcuatus* (Troupeau) Moniez (Europa).

Negligenda est species:

*Chortoglyphus nudus* Berlese (nec non Canestr.), quia *Ch. arcuati* synonymima.

#### GENUS V. **Mealia** Trouessart 1897 (in litteris)

Genus hoc ex speciebus duabus est constitutum, ex quibus una valde paradoxa (*M. pteronyssina*) omnino Analgesidae ex genere *Pteronyssus* similis et cum Analgesidis optime conveniret, nisi ambulacro unco medio conspicuo, vitaeque more in tyroglyphidis incurreret, tamen inter duas supradictas familias intermedia sistit; altera (*M. longior*) generi *Chortoglyphus* affinis, sed disculis copulatoriis in tarso quarti paris nullis, quamvis non bene distincta, certe a *M. pteronyssina* diversior. Tamen *M. longioris* foemina non dignoscitur, quare eius locus in systemate dubius adhuc est. Species ambas invenit Cl. Trouessart liberas et mecum benignissime, nondum descriptas, communicavit (1); characteribus istis inter sese distinguuntur:

Mas pedibus tertiis ceteris crassiores. **M. pteronyssina** Trouess.

Mas pedibus omnibus inter sese crassitie et longitudine paribus . . . . . **M. longior** Trouess.

*Mealia pteronyssina* Trouessart, super pelles exiccatas libera est inventa (Gallia); *Mealia longior* Trouessart, in substantiis animalibus putrescentibus est collecta (Gallia).

#### GENUS VI. **Saproglyphus** Berlese 1890

Unica huius generis species hucusque nota est *Saproglyphus neglectus* Berlese in putrescentibus collectus (Italia).

---

(1) Quamvis non in Italia species haec sint collectae, tamen delineavimus quia in systemate magni momenti.

GENUS VII. **Trichotarsus** Canestrini 1888.

Huius generis species una tantum adulta dignoscitur, alia (*Tr. Osmiae*) tantum propter hypopum suum super *Osmias* aliasque *Apidas* sat frequens, cuius tamen adultus qui certe in *Apidarum* harum nidis adest, nondum inventus est. Intersepe hypopi tamen distinguntur propter characteres infrascriptos.

Disculi adhaesionis sexiles, abdomen leniter postice incisum (320  $\mu$ ) . . . **Tr. Xylocopae** (Dugès) Can.

Disculi adhaesionis pedunculatuli; abdomen postice rotundatum, integrum 400  $\mu$ ) . . . **Tr. Osmiae** (Dufour) Can.

Species ergo sunt:

*Trichotarsus Xylocopae* (Dugès) Canestrini, in nidis *Xylocopae violaceae* et hypopus huius insecti ad thoracem posticum arcte, innumerus saepissime adhaerens;

*Trichotarsus Osmiae* (Dufour) Berl. super *Osmias*, *Andrenas*, *Megachiles*, hypopus collectus. (1)

GENUS VIII. **Carpoglyphus** Robin 1860

Species unica est *Carpoglyphus passularum* Robin, in tota Europa obvia.

GENUS IX **Hertela** Canestrini 1888.

Unica species in Gallia est collecta a Cl. Robin quam appellavit *Glycyphagus hericius*, sed bene in genere a *Glycyphagus* diverso introduxit Cl. Canestrinus et nomine *Hericia Robinii* specificavit. Super arbores pluries inventa; ego delineavi quia characteribus suis insignis, quamvis nondum in Italia sit inventa.

---

(1) Inveni quoque saepius super *Bombos* hypopum quemdam, ad fig. 3, tab. IV delineat. qui generi *Trichotarsus* pertinere videtur (pedibus posticis haud ambulacratiss) sed praecedentibus hypopis valde diversus, eiusque adultus adhuc ignotus.



**Species ex subgenere *Glycyphagus* sunt:**

*Glycyphagus domesticus* (De Geer) Berl. (Tota Europa);  
*Glycyphagus spinipes* (Koch) Fourn. et Rob. (Tota Europa  
 alibique); *Glycyphagus ornatus* Kram. (Tota Europa).

**Species ex subgenere *Homopus* sunt:**

*Glycyphagus plumiger* (Koch) Fourn. et Rob., (Tota Europa); *Glycyphagus palmifer* Fourn. et Rob. (Tota Europa);  
*Glycyphagus Talpae* (Kram.) Berl. (Tota Europa); *Glycyphagus sciurinus* (Koch-Hall.) Berl. (Germania, Italia); *Glycyphagus intermedius* Canestr. (Italia);  
*Glycyphagus Canestrinii Armanelli* (Italia);  
*Glycyphagus platygaster* Michael (Britannia);  
*Glycyphagus dispar* Michael (Britannia), *Glycyphagus pterophorus* Berlese (Italia); *Glycyphagus peregrinus* Berlese (Italia).

**Species huius generis negligendae sunt:**

*Glycyphagus* sp. Kramer est *Carpoglyphus passularum*;  
*Glycyphagus anonymus* Haller (nec non Berlese in *Note*) idest *Carpoglyphus passularum*;  
*Glycyphagus cursor* Gervais (nec non Fourn. et Rob.) Megnin; Blanchard etc.) est *Glycyphagus domesticus*;  
*Glycyphagus hyppopodus* Hering, nec non Haller. est *Glycyphagus spinipes*;  
*Glycyphagus Kramerii* Michael; sit *Glycyph. Talpae*;  
*Glycyphagus prunorum* Hering (nec non Haller etc.) est *Glycyphagus domesticus*.

**GENUS XI. *Histiogaster* Berlese 1883**

Unica huius generis species est *Histiogaster carpio* (Kram.) Berl. super fungos aliaque putrescentia in Germania et Italia collecta.

**GENUS XII. *Moneziella* Berlese 1897**

Species tres huius generis dignoscuntur, tamen *M. aleurophagam* (Sicher) Berlese <sup>(1)</sup> videre nequivi, neque de-

---

(1) An satis distincta a *M. entomophaga* in Sicilia occurrenti?





Sic huius generis species europaeae dividantur:

|                                                                                                                                                                |                                                                                                                                                  |                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Derma laevigatum; setulae corporis tenuissime plumosulae ( <i>Glycyphagus veri</i> )                                                                           | Maris tibiae primi secundique paris externe appendicula alte pectinata, perconspicua, auctae . . . . .                                           | <i>Gl. ornatus</i> Kram.                                                                                                                                                |
|                                                                                                                                                                | Utriusque sexus tibiae inermes                                                                                                                   | Adest appendicula tactilis, claviformis ad basim tarsorum primi secundique paris; setulae abdominis corpore vix longiores . . . . . <i>Gl. domesticus</i> (D. G.) Berl. |
|                                                                                                                                                                |                                                                                                                                                  | Appendiculae tactiles pedum nullae; setulae abdominis corpore multo longiores . . . . . <i>Gl. spinipes</i> (Koch) Fourn. et Rob.                                       |
| Margines corporis, saltem in foeminis, alte crenulato-tuberculati.                                                                                             | Mares foeminis suis corporis fabrica subsimiles . . . . .                                                                                        | <i>Gl. platygaster</i> Mich.                                                                                                                                            |
|                                                                                                                                                                | Mares corpore lato, brevissime spinoso, marginibus integris; foeminae corporis marginibus alte angulato-tuberculatis, longe spinigeris . . . . . | <i>Gl. dispar</i> Mich.                                                                                                                                                 |
|                                                                                                                                                                | Setulae corporis in laminulas foliiformes vel flabelliformes dilatatae                                                                           | Setulae corporis in laminulas flabelliformes expansae <i>Gl. pterophorus</i> Berl.                                                                                      |
|                                                                                                                                                                |                                                                                                                                                  | Setulae corporis foliiformes, lanceolatae . . . . . <i>Gl. palmifer</i> Fourn. et Rob.                                                                                  |
|                                                                                                                                                                | Setulae corporis brevissime spiniformes . . . . .                                                                                                | <i>Gl. Talpae</i> (Cram.) Berl.                                                                                                                                         |
| Derma punctulatum vel verruculatum; setulae corporis dense plumosulae, vel alte barbatulae, vel laminaceae, rarius simplices breviores ( <i>Homopus</i> auct.) | Margines corporis in utroque sexu integri.                                                                                                       | Setulae corporis in utroque sexu subsimplices, vix tenuissime barbatulae                                                                                                |
|                                                                                                                                                                |                                                                                                                                                  | Penis post quartas coxas insitus <i>Gl. sclerinus</i> (Koch, Hall.) Berl.                                                                                               |
|                                                                                                                                                                |                                                                                                                                                  | Penis inter secundas et tertias coxas insitus . . . . . <i>Gl. peregrinans</i> Berl.                                                                                    |
|                                                                                                                                                                | Setulae corporis simplices vel plumosulae, vel longiores, plumosulae vel barbatulae                                                              | Setulae corporis in utroque sexu plumiformes, breves . . . . . <i>Gl. Canestrinii</i> Arman.                                                                            |
|                                                                                                                                                                | Setulae corporis saltem in foemina plumiformes                                                                                                   | Setulae corporis certe eius latitudinem superantes                                                                                                                      |
|                                                                                                                                                                |                                                                                                                                                  | Derma crasse tuberculatum; setulae late plumiformes . . . . . <i>Gl. plumifer</i> (Koch.) Fourn. et Rob.                                                                |
|                                                                                                                                                                |                                                                                                                                                  | Derma minute punctulatum; setulae barbatulae, cylindricae . . . . . <i>G. intermedius</i> Canestrini                                                                    |





scriptionis tantum auxilio in tabula dichotomicha inserere potui. Huic certe generi pertinere videtur, non in genere *Histiogaster* introducendam.

Mas abdomine postice membranula sat late  
semicirculariter expansa, bipila auctum; pedes  
mediocres . . . . . **M. entomophaga (La-**  
**boulbene) Berl.**

Mas abdomine postice simpliciter rotundato,  
in squamam depresso; pedes perbreves . . . **M. Mali (Shimer) Berl.**

Species ergo sunt:

*Moneziella Mali (Shimer) Berlese*, (America, Europa); *Moneziella entomophaga (Laboulbene) Berlese* (Italia, Gallia), *Moneziella aleurophaga (Sicher) Berlese* (Italia).

GENUS XIII. **Tyroglyphus** Latreille 1797

Species europaeas mihi notas sic divido:

Setulae corporis longiusculae, apice clavulae et barbatulae  
(*Murciiiformis*) . . . . . **T. Wasmanni Moniez**

|                                                  |   |                                                                                                                         |   |                                                                                                                   |
|--------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------|
| Setulae corporis simplices, apice acutae, nudae. | { | Anticum in medio setulis quatuor interese longitudine subaequalibus, longiusculis praeditum (exceptis setulis verticis. | { | Abdomen postice setulis duabus vel quatuor longiusculis . . . . . <b>T. Kramerii Berl.</b>                        |
|                                                  |   |                                                                                                                         |   | Abdomen postice setulis duodecim vel quatuordecim longioribus).                                                   |
|                                                  |   |                                                                                                                         |   | Penis rectus; tarsi quarti paris in mari circiter quadruplo longiores quam lati. . . <b>T. Siro (Linn.) Latr.</b> |
|                                                  |   |                                                                                                                         |   | Penis runcatus; tarsi amplius quam decuplo longiores quam lati . . . . . <b>T. longior Gervais</b>                |

|   |                                                                                                          |                                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| { | Auticum in medio setulis longiusculis duabus, spinisque vel setulis brevioribus duabus internis armatum. | Mas pedibus anticis abdominis latitudinem certe superantibus (Foemin. ultra 1,300 $\mu$ . long). . . . . <b>T. mycophagus Mègnin</b> |
|   |                                                                                                          | Mas pedibus anticis abdominis latitudine multo curtioribus (Foem. 900 $\mu$ . long.) . . . . . <b>T. ovatus Troupeau</b>             |

Species huius generis sunt:

*Tyroglyphus Kramerii* Berlese (Tota Europa); *Tyroglyphus longior Gervais* (Europa, America); *Tyroglyphus mycophagus Mègnin* (Tota Europa); *Tyroglyphus ovatus Troupeau* (Gallia, Italia); *Tyroglyphus sicularis Fumouze et Robin* (Italia, Gallia); *Tyroglyphus Siro (Linné) Latreille*, (Italia, America); *Tyroglyphus sironiformis Fumouze et Robin* (Gallia); *Tyroglyphus Wasmanni Moniez* (Austria, Hollandia).

Species in alio genere inserendae:

*Tyroglyphus arcuatus* Troupeau, est *Chortoglyphus arcuatus*  
*Tyroglyphus carpio* Kramer, sit *Histiogaster carpio*;

*Tyroglyphus entomophagus* Laboulbène, est *Moneziella entomophaga*;  
*Tyroglyphus Farinae* Auctor. est *Aleurobius Farinae*;  
*Tyroglyphus Mali* Shimer etc. sit *Moneziella Mali*;  
*Tyroglyphus echinopus* Fumouze et Robin est *Rhyzoglyphus echinopus*;  
*Tyroglyphus passularum* Haller, Robin etc. sit *Carpoglyphus passu-*  
*larum*;

*Tyroglyphus rostro serratus* Mègnin, est *Histiostoma rostro serratum*;

Species mihi minus bene notae:

*Tyroglyphus diversipes* Karpelles

*Tyroglyphus siculus* Fumouze et Robin

*Tyroglyphus sironiformis* Fumouze et Robin

Species nonnullae huius generis negligendae, quia aliarum synonymae vel minus bene descriptae:

*Tyroglyphus agilis* Can. mihi videtur esse *T. ovatus*.

*Tyroglyphus bicaudatus* Walkenaer, ruid est?

*Tyroglyphus corticalis* Michael idest *Moneziella Mali*;

*Tyroglyphus Feculae* Guérin, an *Aleurobius Farinae*?

*Tyroglyphus infestans* Berlese idest *T. longior*;

*Tyroglyphus Mègninii* Haller (nec non Berlese) est *Rhyzoglyphus echinopus*;

*Tyroglyphus minutus* Targioni - Tozzetti, rursus inquirendus et melius dignoscendus;

*Tyroglyphus oblongulus* Berlese (Acari dann. piante coltivate e Note agli A. M. S. It.) valde dubia species;

*Tyroglyphus setiferus* Haller idest *T. longior*.

#### GENUS XIV. **Aleurobius** Canestrini 1888.

Unica species hucusque nota est *Aleurobius Farinae* (De Geer) Canestr. (tota Europa).

#### GENUS XV. **Rhyzoglyphus** Claparède 1869

Species duae huius generis dignoscuntur ex quibus una iam de tempore descripta, alia nuper comperta a Cl. Trouessartio, mecumque sine nomine communicata, inter *Otodectes Furonis* collecta, cuius tamen mas heteromorphus tantum dignoscitur sed pedibus curtioribus, statura, aliisque characteribus valde a R. echinopodo diversa. Sic species dignoscantur:

Mas (heteromorphus) pedibus valide spinosis etiam in ceteris segmentis praeter tarsum; ad

700  $\mu$  long. . . . . **Rh. echinopus** (Foum. et Rob.) Berlese.



Mas (heteromorphus) pedibus spinis destitutis (exceptis duabus minoribus ad tarsi apicem); ad 320 long. . . . . **Rh. Trouessarti Berlese** (n. sp.).

Species ergo sunt:

*Rhyzoglyphus echinopus* (Fumouze et Robin) Berlese (Tota Europa); *Rhyzoglyphus Trouessarti* Berlese (Gallia).

Neglige :

*Rhyzoglyphus spinitarsus* Canestrini, qui est. *R. echinopus*; *Acarus spinitarsus* Hermannii, hypopus est, et valde dubie huic speciei referendus.

Familiae Tyroglyphidarum genera sequentia sunt negligenda :

**Caelognathus** Hessling (pro *Caelognathus morsitans*) idest *Tyroglyphus*;

**Coelophagus** Blanchard, Mègnin (pro *C. echinopus*) idest *Rhyzoglyphus*;

**Dermacarus** Haller idest *Glycyphagus* (*Homopus*);

**Eutarsus** Hessling est *Trichotarsus*. (*Eutarsus cancriformis* sit *Trichotarsus Xylocopae*);

**Homopus** Koch, Canestrini etc. vix subgenus generis *Glycyphagus* tamen non bene a *Glycyphagus* veris distingui potest.

**Hypopus** Berlese idest *Histiostoma*. Nomen hypopus tantum nymphis migratoriis servandum est.

**Phycobius** Canestrini, idest *Carpoglyphus* Robin

**Serrator** Mègnin idest *Histiostoma* Kramer.

**Trichodaetylus** Dugès. nec non Canestrini et Fanzago; Canestrini et Berlese, Berlese A. M. S. quia inter crustaceos nomen hoc praeoccupatum dicatur **Trichotarsus**.

# CRYPTOSTIGMATUM

(1<sup>e</sup> sectionis, sive Sarcopliidarum)

## Habitatio

Huius subordinis acari perobvii sunt, undique occurrentes, vel liberi, vel parasitae, secundum infrascriptum catalogum.

|                                               |   |                                                               |                                              |
|-----------------------------------------------|---|---------------------------------------------------------------|----------------------------------------------|
| Liberi                                        | { | In putrescentibus . . . . .                                   | A                                            |
|                                               |   | In muscis . . . . .                                           | B                                            |
|                                               |   | Super arborum cortices vel radices, vel super folia . . . . . | C                                            |
|                                               |   | In foenilibus . . . . .                                       | D                                            |
|                                               |   | Super algas . . . . .                                         | E                                            |
| Superalia animalia victitantes vel insidentes | { | In nidis aliorum animalium                                    | In nidis vermium . . . . . F                 |
|                                               |   |                                                               | In nidis insectorum . . . . . G              |
|                                               |   |                                                               | In nidis vel cuniculis mammalium . . . . . H |
|                                               |   |                                                               | In domibus . . . . . I                       |
|                                               | { | Super alia animalia parasitae vel obiter occurrentes          | Viatores { Super arthropoda . . . . . L      |
|                                               |   |                                                               | tantum { Super vertebrata . . . . . M        |
|                                               |   | Vere parasitae                                                | { Super arthropoda . . . . . N               |
|                                               |   |                                                               | { Super aves . . . . . O                     |
|                                               |   |                                                               | { Super mammalia . . . . . P                 |
|                                               |   |                                                               |                                              |

## A

In putrescentibus  
α in fimetis

*Histiostoma fimetarium*  
*Histiostoma phyllothrichum* †  
*Histiostoma flagellifer* †

β super fungos, tuberos, (rarius carnes) putrescentes

*Rhyzoglyphus echinopus*  
*Histiostoma rostroserratum*  
*Histiostoma muscarum*  
*Tyroglyphus Kramerii*  
*Tyroglyphus mycophagus*  
*Carpoglyphus passularum*

## B

In muscis (rariores sunt).

*Glycyphagus spinipes* †  
*Glycyphagus ornatus* †

## C

Super vegetabilia viva et emortua

|                                                      |                                                                                             |
|------------------------------------------------------|---------------------------------------------------------------------------------------------|
| α) super folia viva                                  | <i>Hericia Robinii</i>                                                                      |
| β) coccidas inquirens                                | <i>Hemisarcoptes coccisugus</i>                                                             |
| γ) super cortices e-<br>mortuas et pu-<br>trescentes | <i>Saproglyphus neglectus</i><br><i>Histiogaster carpio</i><br><i>Monetiella corticalis</i> |

δ) super radices :

*Rhyzoglyphus echinopus*

## D

In foenilibus, sive in foeni detritis :

*Chortoglyphus arcuatus*  
*Glycyphagus spinipes*  
*Glycyphagus ornatus*  
*Glycyphagus Canestrinii*  
*Glycyphagus plumifer*  
*Glycyphagus palmifer*

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† Signum hoc speciem rarius occurrentem significat.

## E

Super algas *Lentungula algivorans*

## F

In nidis vermium :

(*Aulastomum gulo*) *Histiostoma Berghii*

## G

In nidis insectorum

*Xylocopa violacea* *Trichotarsus Xylocopae*  
*Glycyphagus peregrinans*

*Osmia etc.* *Trichotarsus Osmiae*

*Formicae* *Tyroglyphus Kramerii*  
*Tyroglyphus Wasmanni*

## H

In nidis vel cuniculis mammalium :

*Talpa europaea*

*Glycyphagus Talpae*

*Glycyphagus dispar*

*Glycyphagus platigaster*

*Vespertiliones* *Glycyphagus pterophorus*

## I

In domibus:

α) *detriticoli* *Glycyphagus domesticus*  
*Glycyphagus spinipes*

β) *Caseum, farinam, fructus exiccatos, aliaque aesculenta*  
*inquinantes et destruentes:*

*Aleurobius Farinae*

*Tyroglyphus longior*

*Tyroglyphus Siro*

*Phycobius anonymus*



- γ) Carnes, aromata etc. exiccata, insecta asservata cor-  
 rodentes *Monctiella entomophaga*  
*Tyroglyphus siculus*

## I.

## Super arthropoda viatores

|                                               |                                                          |          |
|-----------------------------------------------|----------------------------------------------------------|----------|
| Iulus , alia myriapoda,<br>insectaque plurima | <i>Histiostoma iulorum</i>                               | } Hypopi |
| Cyrtoneura stabulans                          | <i>Histiostoma muscarum</i>                              |          |
| Insecta varia etc.                            | <i>Histiostoma rostroseratum</i><br><i>H. fimetarium</i> |          |
| Xylocopa violacea                             | <i>Trichotarsus Xylocopae</i>                            |          |
| Osmia aliaeque apidae                         | <i>Trichotarsus Osmiae</i>                               |          |
| Bombus                                        | <i>Trichotarsus sp.</i>                                  |          |
| Formicae                                      | <i>Thyroglyphus Kramerii</i>                             |          |
| Polyphylla fullo, Oryctes                     | <i>Thyroglyphus mycophagus</i>                           |          |
| Insecta varia                                 | <i>Aleurobius Farinae</i>                                |          |
| » »                                           | <i>Moneziella mali</i>                                   |          |
| Xylocopa violacea                             | <i>Glycyphagus peregrinans adultus</i>                   |          |

## M

## Super vertebrata viatores ad diffundendam speciem

|                       |                                                       |          |
|-----------------------|-------------------------------------------------------|----------|
| Talpa europaea        | <i>Glycyphagus Talpae</i>                             | } Hypopi |
| Sciurus vulgaris      | <i>Glycyphagus sciurinus</i>                          |          |
| Heterocephalus glaber | <i>Acotylopus (Glycyphagus)</i><br><i>Canestrinii</i> |          |
| Vespertilio noctula   | <i>Glycyphagus pterophorus adultus</i>                |          |

## N

## Vere parasitae arthropodorum:

|                          |                                               |
|--------------------------|-----------------------------------------------|
| Blaps                    | <i>Canestrinia Blaptis</i>                    |
| Cerambyx cerdo etc.      | <i>Canestrinia Cerambicis</i>                 |
| Dorcus parallelepipedus  | <i>Canestrinia dorcicola</i>                  |
| Pentodon punctatus       | <i>Canestrinia dorcicola var. Pentodontis</i> |
| Procrustes coriaceus     | <i>Canestrinia Procrusti</i>                  |
| Chrysomela               | <i>Canestrinia Giardi</i>                     |
| Carabus                  | <i>Coleopterophagus carabicola</i>            |
| Cetonia metallica        | <i>Colcopterophagus Megninii</i>              |
| Lina Populi et L. grossa | <i>Linocoptes Coccinellae</i>                 |

## O

## Parasitae avium.

Ordo I° **Ratitae****Strutionidae**

|                  |                               |
|------------------|-------------------------------|
| Struthio Camelus | <i>Paralges pachynemnis</i>   |
|                  | <i>Pterolichus Strutionis</i> |

**Rheidae**

|                |                               |
|----------------|-------------------------------|
| Rhea americana | <i>Paralges pachynemnis</i>   |
|                | <i>Pterolichus Strutionis</i> |

**Casuaridae**

|                            |                                             |
|----------------------------|---------------------------------------------|
| Casuarus uniappendiculatus | <i>Pterolichus (Protolichus) casuarinus</i> |
|----------------------------|---------------------------------------------|

Ordo II° **Carinatae**

## A Dromaeognatae

## Tribus Crypturi

**Tinamidae**

|                   |                            |
|-------------------|----------------------------|
| Tinamus           |                            |
| Notocercus Sallei | <i>Neumannia chelifer</i>  |
|                   | <i>Xoloptes forcipatus</i> |

## Tribus Impennes

## Spheniscidae

Aptenodytes

*Megninia velata*

## Tribus Pygopodes

## Podicipidae

Podiceps cristatus

*Pterolichus Colymbi* var. maior

Podiceps minor

*Pterolichus Colymbi*

## Colymbidae

Colymbus glacialis

*Pterolichus forficiger*

Colymbus minor

*Pterolichus Colymbi*

Colymbus septentrionalis

*Pterol. Colymbi* var. maior

## Alcidae

Utamania Torda

*Alloptes bisetatus* var. minor

Fratercula artica

*Alloptes bisetatus* var. minor*Alloptes Phaetontis*

Uria grylle

*Alloptes bisetatus* var. minor

## Tribus Tubinares

## Procellariidae

Daption capensis

*Freyana (Microspalax) manicata*,  
var. maior

Diomedea chlororhyncha

*Pterolichus rubidus*

Procellaria

*Pteronyssus Puffini*

Puffinus

*Pteronyssus Puffini*

Puffinus cinereus

*Freyana (Microspalax) manicata*  
var. brevipes

Puffinus obscurus

*Freyana (Microspalax) manicata*

Thalassidroma

*Pteronyssus Puffini*.

## Tribus Gaviae

## Stereorariidae

Lestris parasiticus

*Alloptes crassipes*  
*Thecarthra Theca* var.

Lestris Richardsonii

*Alloptes crassipes*  
*Pterolichus Theca* var.

**Laridae**

|                          |                                                                                              |
|--------------------------|----------------------------------------------------------------------------------------------|
| Larus                    | <i>Pteronyssus Puffini</i><br><i>Alloptes crassipes</i>                                      |
| Larus argentatus         | <i>Pterolichus marinus</i>                                                                   |
| Larus ridibundus         | <i>Alloptes crassipes</i> var. minor<br><i>Freyana anatina</i><br><i>Pteronyssus Puffini</i> |
| Hydrochelidon fissipes   | <i>Thecarthra Theca</i><br><i>Thecarthra simplex</i>                                         |
| Hydrochelidon leucoptera | <i>Thecarthra simplex</i> var. tyroglyphina                                                  |
| Rhynchops atra           | <i>Freyana marginata</i> var. grandiloba                                                     |
| Rhynchops flavirostris   | <i>Freyana marginata</i>                                                                     |
| Sterna                   | <i>Pteronyssus Puffini</i>                                                                   |
| Sterna affinis           | <i>Thecarthra Theca</i>                                                                      |
| Sterna anglica           | <i>Thecarthra Theca</i>                                                                      |
| Sterna cantiaea          | <i>Thecarthra Theca</i>                                                                      |
| Sterna caspia            | <i>Thecarthra Theca</i>                                                                      |
| Sterna Hirundo           | <i>Alloptes crassipes</i><br><i>Pterolichus Martini</i><br><i>Thecarthra semaphora</i>       |
| Sterna minuta            | <i>Pteronyssus Puffini</i><br><i>Alloptes crassipes</i>                                      |

**Tribus Limicolae****Scolopaciidae**

|                       |                                                                                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------|
| Numenius              | <i>Alloptes crassipes</i>                                                                                             |
| Numenius arquatus     | <i>Pterolichus Ninnii</i>                                                                                             |
| Numenius phaeopus     | <i>Pterolichus Numenii</i>                                                                                            |
| Numenius tenuirostris | <i>Pterolichus Ninnii</i>                                                                                             |
| Limosa                | <i>Alloptes crassipes</i>                                                                                             |
| Limosa melanura       | <i>Alloptes crassipes</i><br><i>Pterolichus Buchholzii</i><br><i>Pterolichus Limosae</i><br><i>Pterolichus Totani</i> |
| Limosa Meyeri         | <i>Pterolichus Limosae</i>                                                                                            |



|                                 |                                                                                                                                                                                                 |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Limosa rufa</i>              | <i>Pterolichus Limosae</i> var. <i>selenurus</i><br><i>Pterolichus Limosae</i> typ.<br><i>Thecarthra setigera</i>                                                                               |
| <i>Scolopax gallinago</i>       | <i>Alloptes flagellicaudus</i>                                                                                                                                                                  |
| <i>Scolopax rusticola</i>       | <i>Proctophyllodes glandarinus</i>                                                                                                                                                              |
| <i>Gallinago minima</i>         | <i>Pterolichus Charadrii</i>                                                                                                                                                                    |
| <i>Gallinago nigripennis</i>    | <i>Dermoglyphus pteronyssoides</i>                                                                                                                                                              |
| <i>Totanus calidris</i>         | <i>Pterolichus Buchholzi</i> var. <i>fasciger</i><br><i>Pterolichus Totani</i><br><i>Megninia gracilipes</i><br><i>Syringobia chelopus</i>                                                      |
| <i>Totanus fuscus</i>           | <i>Pterolichus Limosae</i><br><i>Pterolichus Limosae</i> var. <i>mucronatus</i>                                                                                                                 |
| <i>Totanus macularius</i>       | <i>Alloptes crassipes</i> var. <i>curtipes</i>                                                                                                                                                  |
| <i>Totanus semipalmatus</i>     | <i>Pterolichus Limosae</i> var. <i>selenurus</i>                                                                                                                                                |
| <i>Actitis hypoleucos</i>       | <i>Pterocolus Actitidis</i><br><i>Pterolichus Charadrii</i><br><i>Thecarthra interifolia</i>                                                                                                    |
| <i>Machaetes pugnax</i>         | <i>Pterolichus Totani</i>                                                                                                                                                                       |
| <i>Tringa</i>                   | <i>Alloptes crassipes</i>                                                                                                                                                                       |
| <i>Tringa alpina</i>            | <i>Alloptes crassipes</i><br><i>Pterocolus Actitidis</i><br><i>Pterolichus Totani</i><br><i>Pterolichus Buchholzi</i> var. <i>hastiger</i><br><i>Pterolichus Buchholzi</i> var. <i>fasciger</i> |
| <i>Tringa canutus</i>           | <i>Pterocolus Actitidis</i>                                                                                                                                                                     |
| <i>Tringa minuta</i>            | <i>Pterolichus Totani</i>                                                                                                                                                                       |
| <i>Tringa subarquata</i>        | <i>Pterolichus Buchholzi</i> var. <i>securicatus</i>                                                                                                                                            |
| <i>Tringa Temminckii</i>        | <i>Pterocolus Actitidis</i>                                                                                                                                                                     |
| <i>Tringoides macularis</i>     | <i>Megninia forcipata</i>                                                                                                                                                                       |
| <i>Phalaropus platyrhynchus</i> | <i>Pterolichus Totani</i>                                                                                                                                                                       |
| <i>Himantopus melanopterus</i>  | <i>Pterolichus Charadrii</i><br><i>Pterolichus Rebebergi</i> var. <i>gracilis</i>                                                                                                               |
| <i>Recurvirostra avocetta</i>   | <i>Pterolichus Charadrii</i><br><i>Pterolichus Rebebergi</i>                                                                                                                                    |

**Parridae**

Hydrophasianus chirurgus     *Pterolichus Parrae*

**Charadriidae**

Haematopus niger     *Pterolichus Charadrii*

Haematopus ostralegus     *Pterolichus Charadrii*

*Pterolichus Rehbergi*

*Alloptes crassipes* var. *curtipes*

Strepsilaps collaris     *Pterolichus Buchholzi* var. *fasciger*

Vanellus cristatus     *Pterolichus Vanelli*

Chettusia cinerea     *Pterolichus Buchholzi* var. *hastiger*

Eudromias     *Alloptes crassipes*

Squatarola     *Alloptes crassipes*

Squatarola helvetica     *Pterolichus Buchholzi*

*Pterolichus Squatarolae*

*Thecarthra longitarsa*

Charadrius cantianus     *Pterolichus Charadrii*

Charadrius hiaticula     *Thecarthra Bouveti*

*Pterolichus Charadrii*

Charadrius minor     *Pterolichus Charadrii*

*Pterolichus xyphiurus*

Charadrius pluvialis     *Pterolichus Squatarolae*

Charadrius philippinus     *Syringobia tricalcarata*

Cursorius bicinctus     *Pterocolus Ortygometrae*

Dromas ardeola     *Alloptes crassipes* var. *myosurus*

*Pteronyssus Puffini*

Pluvialis melanogaster     *Pterolichus Squatarolae*

Pluvialis varius     *Pterolichus Squatarolae*

Lobivanellus indicus     *Freyana Leclerci*

Lobivanellus goensis     *Freyana Leclerci*

Lobivanellus senegalus     *Freyana Leclerci*

**Oedienemidae**

Oedienemus crepitans     *Pterolichus pallidus*

**Tribus Alektorides****Otididae**

Otis houbara     *Pterolichus Otidis*

**Psophidae**

Psophia agami

*Analloptes Psophiae*  
*Pterolichus corniger***Gruidae**

Grus antigone

*Freyana gracilipes*

Grus cinerea

*Pterocolus Actitidis* var. *discurus*  
*Pterolichus (Pseudalloptes) Gruis***Aramidae**

Aramus scolopaceus

*Alloptes petazophorus*  
*Pterolichus coccyger*Tribus **Fulicariae****Rallidae**

Rallus aquaticus

*Analloptes Megninii*  
*Megninia appendiculata*

Ortygometra crex

*Pterolichus rallorum*

Ortygometra porzana

*Megninia calcarata*  
*Pterocolus Ortygometrae*  
*Pterolichus Porzanae*

Ortygometra pusilla

*Pterocolus Ortygometrae*  
*Pterolichus Porzanae*

Fulica atra

*Pterolichus Fulicae*  
*Pterolichus proctogamus*

Porzana Bailloni

*Analloptes pallens*  
*Dermation bibamatum*

Porphyrio hyacinthinus

*Pterolichus proctogamus*

Hypotaenidia philippinensis

*Pterolichus proctogamus*

Ocydromus australis

*Megninia androgyna*  
*Megninia clongata*Tribus **Gallinae****Cracidae**

Crax alector

*Pterolichus pustulatus***Megapodidae**

Aepipodius Bruijnii

*Pterolichus (Pseudalloptes) curtus*  
*Pterolichus (Pseudalloptes) pal-*  
*miger*

*Pterolichus (Pseudalloptes) quadratus*

*Pterolichus navicula*

*Megapodius Freycineti*

*Allanalgus bifolius*

*Pterolichus navicula*

*Pterolichus (Pseudalloptes) curtus*

*Pterolichus (Pseudalloptes) torcosathes*

*Megapodius Lapeyrousei*

*Pteronyssus acris*

*Megapodius jobiensis*

*Cheylabis fuscina*

*Pterolichus navicula*

*Pterolichus tritilobus*

*Pterolichus (Pseudalloptes) gracilis*

*Pterolichus (Pseudalloptes) tridentiger*

*Talegallus Cuvieri*

*Pterolichus (Pseudalloptes) palmiger*

*Pterolichus (Pseudalloptes) quadratus*

## Phasianidae

*Polyplectron bicalcaratum*

*Pterolichus (Pseudalloptes) bimucronatus*

*Phasianus Reevesii*

*Pterolichus (Pseudalloptes) bimucronatus*

*Phasianus pictus*

*Epidermoptes uncinatus*

*Megninia cubitalis*

*Pterolichus obtusus*

*Euplocomus*

*Pterolichus obtusus*

*Diardigallus praelatus*

*Pterolichus obtusus*

*Gallus domesticus*

*Laminosioptes cysticola*

*Cnemidocoptes Gallinae*

*Cnemidocoptes mutans*

*Cytodites nudus*

*Epidermoptes bifurcatus*

*Epidermoptes bilobatus*

*Dermoglyphus elongatus*

*Megninia cubitalis*

*Megninia centropodos*

*Pavo cristatus*

*Dermoglyphus minor*



*Cerionis satyra*  
*Cryptomix cristatus*

### **Meleagridae**

*Meleagris Gallopavo*  
*Meleagris ocellata*

### **Numididae**

*Numida meleagris*

### **Perdidae**

*Perdix rufa*

*Perdix saxatilis*  
*Coturnix communis*  
*Sterna cinerea*

### **Tetraonidae**

*Tetrao Urogallus*

*Lagopus albus*

*Ortalida squamata*

*Pterolichus cataphractus*  
*Pterolichus decoratus*

*Frayana (microspalax) Chanay*  
*Freyana ovalis*

*Dermoglyphus minor*  
*Dermoglyphus varians*

*Rivoltasia bifurcata*  
*Pterolichus obtusus*  
*Xoloptes claudicans*  
*Dermoglyphus deformis*  
*Pterolichus (Pseudalloptes) bisubulatus*

*Xoloptes claudicans*  
*Xoloptes claudicans*  
*Pterolichus obtusus*  
*Pterolichus (Pseudalloptes) bisubulatus*  
*Xoloptes claudicans*

*Pterolichus Urogalli*  
*Pterolichus (Pseudalloptes) microdiscus*

*Pterolichus (Pseudalloptes) bimucronatus*

*Pterolichus (Pseudalloptes) Forficula*  
*Xoloptes minor*

### **Tribus Columbae**

### **Columbidae**

*Pterophagus strictus*  
*Cnemidocoptes Columbae*  
*Falciger rostratus*

|                               |                             |
|-------------------------------|-----------------------------|
| <i>Columba livia</i>          | <i>Falciger rostratus</i>   |
|                               | <i>Pterophagus strictus</i> |
| <i>Columba oenas</i>          | <i>Falciger rostratus</i>   |
| <i>Columba palumbus</i>       | <i>Falciger rostratus</i>   |
| <i>Ectopistes migratorius</i> | <i>Megninia gladiator</i>   |
| <i>Lophophaps plumifera</i>   | <i>Falciger rostratus</i>   |

### Gouridae

|                       |                           |
|-----------------------|---------------------------|
| <i>Goura coronata</i> | <i>Falciger rostratus</i> |
|-----------------------|---------------------------|

### Desmognathae

### Tribus Anseres

### Anseridae

|                              |                                              |
|------------------------------|----------------------------------------------|
| <i>Anser</i>                 | <i>Freyana anserina</i>                      |
| <i>Chen iperborea</i>        | <i>Freyana anserina</i>                      |
| <i>Chenalopex aegyptiaca</i> | <i>Bdellorhynchus psalidurus</i>             |
| <i>Nettapus auritus</i>      | <i>Freyana anatina</i> var. <i>nettapina</i> |
|                              | <i>Pterocolus lambda</i>                     |

### Anatidae

|                           |                                     |
|---------------------------|-------------------------------------|
| <i>Anas</i>               | <i>Freyana anatina</i>              |
| <i>Dafila acuta</i>       | <i>Freyana anatina</i>              |
| <i>Anas boschas</i>       | <i>Freyana anatina</i>              |
| <i>Anas crecca</i>        | <i>Freyana anatina</i> typ. et var. |
|                           | <i>Bdellorhynchus polymorphus</i>   |
| <i>Querquedula circia</i> | <i>Freyana anatina</i>              |
| <i>Tadorna cornuta</i>    | <i>Freyana anatina</i>              |
| <i>Spathula clypeata</i>  | <i>Bdellorhynchus polymorphus</i>   |
| <i>Mareca penelope</i>    | <i>Freyana anatina</i> typ.         |
|                           | » » var. <i>simplex</i>             |
| <i>Querquedula</i>        | <i>Freyana anatina</i> typ.         |
|                           | » » var. <i>largifolia</i>          |
|                           | » » var. <i>simplex</i>             |
| <i>Fuligula cristata</i>  | <i>Freyana anatina</i> typ.         |
|                           | » » var. <i>armata</i>              |
|                           | » » var. <i>largifolia</i>          |
|                           | » » var. <i>simplex</i>             |

**Oidemia***Freyana anatina* typ.» » var. *armata***Erismatura leucocephala***Bdellorhynchus polymorphus***Mergidae****Mergus serrator***Freyana anatina* typ. et var.*Pterolichus Totani***Cygnidae****Cygnus olor***Freyana anatina***Cygnus musicus***Megninia velata***Tribus Odontoglossae****Phoenicopteridae****Phoenicopus antiquorum** *Freyana (Halleria) hirsutirostris**Pterolichus Phoenicopteri***Tribus Herodiones****Plataleidae****Platalea ajaia***Alloptes euryurus**Alloptes trachelurus**Freyana Halleri***Platalea leucordia***Analloptes Megninii* var. *falcinelli**Megninia Ibis***Ibidae****Bostrichia carunculata***Pterolichus anomalus**Freyana choriophtoides***Plegadis falcinellus***Analloptes Megninii* var. *falcinelli***Ibis hagedash***Freyana oblonga**Pterolichus marginatus***Ibis melanocephala***Freyana tarandus***Ibis melanopsis***Freyana tarandus***Ibis rubra***Alloptes abbreviatus**Alloptes claviger**Freyana horrida*

|                               |                                           |
|-------------------------------|-------------------------------------------|
| <i>Ibis strictipennis</i>     | <i>Alloptes corymbophorus</i>             |
|                               | <i>Freyana tarandus</i>                   |
| <i>Tantalus ibis</i>          | <i>Freyana (Halleria) ceratorbina</i>     |
| <b>Ciconidae</b>              |                                           |
| <i>Ciconia alba</i>           | <i>Freyana pelargica</i>                  |
|                               | <i>Pterolichus Ciconiae</i>               |
|                               | <i>Pterol. (Pseudalloptes) didactylus</i> |
| <i>Ciconia maguari</i>        | <i>Freyana pelargica</i>                  |
| <i>Ciconia nigra</i>          | <i>Freyana pelargica</i>                  |
| <i>Leptophilos crumenifer</i> | <i>Pterolichus serrativentris</i>         |
| <i>Mycteria senegalensis</i>  | <i>Freyana gracilipes</i>                 |
| <i>Scopus umbretta</i>        | <i>Freyana pectinata</i>                  |
|                               | <i>Pterolichus (Pseudalloptes) pyri-</i>  |
|                               | <i>ventris</i>                            |
| <b>Ardeidae</b>               |                                           |
| <i>Nycticorax caledonicus</i> | <i>Pterolichus Ardeae</i>                 |
| <i>Nycticorax griseus</i>     | <i>Pterolichus Ardeae</i>                 |
| <i>Botaurus stellaris</i>     | <i>Pterolichus Ardeae</i>                 |
|                               | <i>Analloptes Stellaris</i>               |
| <i>Ardea alba</i>             | <i>Pterolichus Ardeae</i>                 |
| <i>Ardea minuta</i>           | <i>Pterolichus Ardeae</i>                 |

#### Tribus Steganopodes

#### Plotidae

|                          |                                 |
|--------------------------|---------------------------------|
| <i>Plotus Levailanti</i> | <i>Pteronyssus bicalcaratus</i> |
|--------------------------|---------------------------------|

#### Phalacrocoracidae

|                                |                                         |
|--------------------------------|-----------------------------------------|
| <i>Phalacrocorax carbo</i>     | <i>Freyana (Michaelichus) heteropus</i> |
| <i>Phalacrocorax cristatus</i> | <i>Freyana (Michaelichus) heteropus</i> |
| <i>Graculus carunculatus</i>   | <i>Pterolichus corystes</i>             |

#### Dysporidae

|                     |                                        |
|---------------------|----------------------------------------|
| <i>Sula bassana</i> | <i>Freyana (Michaelichus) Caputme-</i> |
|                     | <i>dusae</i>                           |
| <i>Sula cyanops</i> | <i>Freyana (Michaelichus) Caputme-</i> |
|                     | <i>dusae</i>                           |



|                       |                                            |
|-----------------------|--------------------------------------------|
| <i>Sula fiber</i>     | <i>Freyana (Michaelichus) Caputmedusae</i> |
|                       | <i>Pteronyssus circiniger</i>              |
| <i>Sula fusca</i>     | <i>Pteronyssus circiniger</i>              |
| <i>Sula piscatrix</i> | <i>Freyana (Michaelichus) Caputmedusae</i> |
|                       | <i>Nealges Poppei</i>                      |
| <i>Sula serrator</i>  | <i>Freyana (Michaelichus) Caputmedusae</i> |

### **Fregatidae**

|                          |                                |
|--------------------------|--------------------------------|
| <i>Tachypetes aquila</i> | <i>Analloptes pterocolurus</i> |
|                          | <i>Alloptes coniventris</i>    |

### **Phaetontidae**

|                          |                                                |
|--------------------------|------------------------------------------------|
| <i>Phaeton aethereus</i> | <i>Alloptes microphaeton</i>                   |
|                          | <i>Alloptes Phaetontis</i>                     |
|                          | <i>Alloptes Phaetontis</i> var. <i>minor</i>   |
|                          | <i>Alloptes Phaetontis</i> var. <i>simplex</i> |

### **Tribus Accipitres**

#### **Vulturidae**

|                          |                              |
|--------------------------|------------------------------|
| <i>Gypaetus barbatus</i> | <i>Pterolichus delibatus</i> |
| <i>Gyps fulvus</i>       | <i>Pterolichus delibatus</i> |

#### **Falconidae**

|                                |                                                                     |
|--------------------------------|---------------------------------------------------------------------|
| <i>Circaetus gallicus</i>      | <i>Pterolichus Nisi</i>                                             |
| <i>Circus cinerascens</i>      | <i>Pterolichus intermedius</i>                                      |
|                                | <i>Pterolichus Nisi</i>                                             |
| <i>Circus pallescens</i>       | <i>Pterolichus intermedius</i>                                      |
| <i>Aquila fulva</i>            | <i>Pterolichus (Pseudalloptes) aquilinus</i>                        |
| <i>Aquila naevia</i>           | <i>Pterolichus (Pseudalloptes) aquilinus</i>                        |
| <i>Haliaëtus leucocephalus</i> | <i>Pterolichus (Pseudalloptes) aquilinus</i>                        |
| <i>Haliaëtus leucogaster</i>   | <i>Pterolichus phylloproctus</i>                                    |
| <i>Buteo vulgaris</i>          | <i>Pterolichus Nisi</i>                                             |
| <i>Pernis apivorus</i>         | <i>Pterolichus Nisi</i>                                             |
| <i>Milvus regalis</i>          | <i>Pterolichus (Pseudalloptes) aquilinus</i> var. <i>milvulinus</i> |

|                     |                                                                           |
|---------------------|---------------------------------------------------------------------------|
| Falco Eleonorae     | <i>Pterolichus intermedius</i>                                            |
| Falco subbuteo      | <i>Pterolichus intermedius</i>                                            |
|                     | <i>Pterolichus minor</i>                                                  |
| Falco tinnunculus   | <i>Pterolichus accipitrinus</i>                                           |
| Accipiter nisus     | <i>Pterolichus Nisi</i>                                                   |
| Pandion haliaëtus   | <i>Pteronyssus fuscus</i>                                                 |
| Haliastur indus     | <i>Pterolichus (Pseudallopates) aquili-</i><br><i>nus var. milvulinus</i> |
|                     | <i>Pterolichus phylloproctus var. mi-</i><br><i>nor</i>                   |
| Harpya destructor   | <i>Pterolichus hirundo</i>                                                |
| Nisus communis      | <i>Pterolichus Nisi</i>                                                   |
| Nisus fringillarius | <i>Pterolichus Nisi</i>                                                   |
| Asturina nitida     | <i>Cheylabis praecox</i>                                                  |
| Elanus melanopterus | <i>Cheylabis latus</i>                                                    |

### Tribus Strigides

#### Bubonidae

|                       |                                                              |
|-----------------------|--------------------------------------------------------------|
| Bubo maximus          | <i>Pterolichus (Crameria) lunulatus</i>                      |
|                       | <i>Pterolichus (Crameria) lunulatus</i><br><i>var. maior</i> |
| Scops zorca           | <i>Pterolichus (Crameria) lunulatus</i>                      |
|                       | <i>Pterolichus parallelus</i>                                |
| Athene noctua         | <i>Pterolichus (Crameria) lunulatus</i>                      |
| Glaucidium passerinum | <i>Pterolichus eventratus</i>                                |
| Nyctala funerea       | <i>Pterolichus (Crameria) lunulatus</i><br><i>var. maior</i> |
| Syrnia u'ula          | <i>Pterolichus (Crameria) lunulatus</i><br><i>var. maior</i> |
| Otus brachyotus       | <i>Pterolichus (Crameria) lunulatus</i><br><i>var. Lyra</i>  |
|                       | <i>Protalges attenuatus</i>                                  |
| Otus vulgaris         | <i>Pterolichus (Crameria) lunulatus</i><br><i>var. Lyra</i>  |
| Spaeotyto hypogaea    | <i>Pterolichus (Crameria) lunulatus</i><br><i>var. maior</i> |

Syrnium aluco  
Syrnium nebulosum

*Pterolichus* (*Crameria*) *lunulatus*  
*Pterolichus longiventer*

### Strigidae

*Strix flammea*

*Pterolichus* (*Crameria*) *lunulatus*  
var. *maior* et *Lyra*

### Tribus Psittaci

### Strigopidae

*Strigops habroptilus*

*Protalges psittacinus*

### Paleornithidae

*Paleornis Alexandri*

*Pterolichus ornatus*

*Paleornis torquatus*

*Pterolichus ornatus*

*Lorius domicella*

*Protalges lorinus*

*Pterolichus* (*Protolichus*) *brachiatus*

*Pterolichus* (*Pseudalloptes*) *delibativentris*

*Pterolichus* (*Pseudalloptes*) *discifer*

*Pterolichus* (*Pseudalloptes*) *lobiger*

*Lorius garrulus*

*Protalges lorinus*

*Loriulus Schlateri*

*Pterolichus* (*Protolichus*) *brachiatus*

» » var. *crassior*

*Trichoglossus haematotus*

*Pterolichus* (*Protolichus*) *brachiatus*

*Trichoglossus multicolor*

*Pterolichus* (*Protolichus*) *brachiatus*  
var *crassior*

*Electus polychlorus*

*Pterolichus ornatus*

*Melopsittacus undulatus*

*Pterolichus lunula*

*Pezophorus formosus*

*Pterolichus chiragricus*

### Cacatuidae

*Cacatua sulphurea*

*Pterolichus ornatus*

*Calyptorhynchus Banksii*

*Pterolichus ornatus* var. *obsoletus*

*Calyptorhynchus macrorhynchus*

*Pterolichus* (*Pseudalloptes*) *spathuliger*

**Psittacidae**

|                                   |                                                                                                                                                                   |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Platycercus Pennantii</b>      | <i>Protalges curtus</i><br><i>Pterolichus affinis</i>                                                                                                             |
| <b>Platycercus flaveolus</b>      | <i>Pterolichus affinis</i>                                                                                                                                        |
| <b>Psittacula lunulata</b>        | <i>Protalges larva</i> var. <i>brevis</i><br><i>Pterolichus hemiphyllus</i>                                                                                       |
| <b>Psittacula passerina</b>       | <i>Pterolichus denticulatus</i> var. <i>cri-</i><br><i>briformis</i>                                                                                              |
| <b>Psittacula virescens</b>       | <i>Protalges larva</i> var. <i>integrifolia</i>                                                                                                                   |
| <b>Ara macao</b>                  | <i>Protalges larva</i><br><i>Pterolichus Canestrinii</i><br><i>Pterolichus</i> ( <i>Protolichus</i> ) <i>eurich-</i><br><i>nemis</i>                              |
| <b>Ara severus</b>                | <i>Protalges larva</i> var. <i>integrifolia</i><br><i>Pterolichus Canestrinii</i>                                                                                 |
| <b>Tanygnathus megalorhynchus</b> | <i>Pterolichus ornatus</i>                                                                                                                                        |
| <b>Conurus cruentatus</b>         | <i>Protalges larva</i> var. <i>integrifolia</i><br><i>Pterolichus denticulatus</i><br><i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>triti-</i><br><i>ventris</i> |
| <b>Conurus smaragdinus</b>        | <i>Protalges larva integrifolia</i><br><i>Pterolichus hastifolia</i><br><i>Pterolichus</i> ( <i>Protolichus</i> ) <i>eurycne-</i><br><i>mis</i>                   |
| <b>Amazona melanocephala</b>      | <i>Protalges larva</i><br><i>Pterolichus haemiphyllus</i> var.<br><i>microphyllus</i><br><i>Pterolichus haemiphyllus</i> var.<br><i>porrectus</i>                 |
| <b>Amazona menstrua</b>           | <i>Pterolichus haemiphyllus</i> var. <i>por-</i><br><i>rectus</i><br><i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>tenuis</i>                                    |
| <b>Arara canga</b>                | <i>Pterolichus Canestrinii</i><br><i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>triti-</i><br><i>ventris</i>                                                     |
| <b>Arara chloroptera</b>          | <i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>triti-</i><br><i>ventris</i>                                                                                       |



*Caica leucogastra*

*Megninia inflata*

*Pterolichus denticulatus*

*Pterolichus (Pseudalloptes) forficiventris*

*Callocephalon galeatum*

*Pterolichus ornatus*

*Coryphilus taïtianus*

*Pterolichus (Pseudalloptes) emargiventris*

*Pterolichus (Pseudalloptes) securiventris*

*Dasyptilus Pecqueti*

*Alloptes megamerus*

*Pterolichus (Pseudalloptes) curtus*

*Pterolichus (Protolichus) falculiger*

*Nanodes australis*

*Pterolichus (Protolichus) brachiatulus* var. *crassior*

*Pterolichus (Pseudalloptes) cultriventris*

#### Tribus Anisodaetylae

##### Podargidae

*Podargus strigoides*

*Chirodiscus amplexans*

##### Meropidae

*Merops apiaster*

*Pterocolus analgoides*

*Pterolichus Cuculi* var.

*Merops aegyptius*

*Pterolichus Cuculi* var.

*Merops badius*

*Pterocolus analgoides*

*Merops nubicus*

*Pterolichus Cuculi* var.

*Merops philippinus*

*Pterolichus Cuculi* var.

*Merops vividis*

*Pterolichus Cuculi* var.

##### Bucerotidae

*Analloptes elythrura*

*Pteronyssus (Mesalges) lyriodes*

*Buceros*

*Pterolichus attenuatus*

*Buceros bicornis*

*Megninia psoroptopus*

*Pterolichus (Pseudalloptes) calcaratus*

*Buceros coronatus*

*Pterolichus crassus*

|                         |                                                        |
|-------------------------|--------------------------------------------------------|
| Buceros plicatus        | <i>Pterolichus circiniger</i>                          |
|                         | <i>Pterolichus ogivalis</i>                            |
|                         | <i>Pteronyssus</i> (Mesalges) <i>abbreviatus</i>       |
|                         | <i>Pteronyssus</i> (Mesalges) <i>elephantopus</i>      |
|                         | <i>Pteronyssus</i> (Mesalges) <i>lyrurus</i>           |
| Buceros rhinoceros      | <i>Pteronyssus</i> (Mesalges) <i>spinosus</i>          |
|                         | <i>Anasicudion Landoisii</i>                           |
|                         | <i>Pterolichus</i> (Pseudalloptes) <i>calcaratus</i> . |
|                         | <i>Pterolichus</i> (Pseudalloptes)                     |
|                         | <i>Fürstembergi</i>                                    |
| Buceros sulcatus        | <i>Pterolichus vexillarius</i>                         |
|                         | <i>Pteronyssus</i> (Mesalges) <i>abbreviatus</i>       |
|                         | <i>Pteronyssus</i> (Mesalges) <i>lyrurus</i>           |
|                         | <i>Pteronyssus</i> (Mesalges) <i>truncatipes</i>       |
|                         | <i>Pterolichus circiniger</i>                          |
| Anorhinus galeritus     | <i>Pterolichus</i> (Oustaletia) <i>Pegasus</i>         |
|                         | <i>Pterolichus</i> (Oustaletia) <i>Pegasus</i>         |
|                         | <i>var. retusus</i>                                    |
|                         | <i>Pterolichus vexillarius</i>                         |
|                         | <i>Pterolichus vexillarius var minor</i>               |
| Anorhinus leucolophus   | <i>Pteronyssus</i> (Mesalges) <i>lyrurus</i>           |
|                         | <i>Pteronyssus</i> (Mesalges) <i>elephantopus</i>      |
|                         | <i>Analloptes corrugatus</i>                           |
|                         | <i>Protalges palmatus</i>                              |
|                         | <i>Pterolichus</i> (Pseudalloptes)                     |
| Anthracoceros convexus  | <i>Fürstembergi</i>                                    |
|                         | <i>Pterolichus</i> (Pseudalloptes) <i>ptero-</i>       |
|                         | <i>colurus</i>                                         |
|                         | <i>Analloptes bipartitus</i>                           |
|                         | <i>Analloptes bipartitus</i>                           |
| Anthracoceros malayanus | <i>Analloptes corrugatus</i>                           |
|                         | <i>Pterolichus</i> (Pseudalloptes)                     |
|                         | <i>Fürstembergi</i>                                    |
|                         | <i>Analloptes corrugatus</i>                           |
|                         | <i>Pterolichus</i> (Pseudalloptes) <i>cal-</i>         |
| Cranorhinus corrugatus  | <i>ratus</i>                                           |

|                        |                                                                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hydrocissa albirostris | <i>Megninia psoroptopus</i><br><i>Pterolichus</i> ( <i>Oustalelia</i> ) <i>Pegasus</i><br>var. <i>retusus</i><br><i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>fissiventris</i><br><i>Pterolichus vexillarius</i> |
| Hydrocorax planicornis | <i>Pterolichus</i> ( <i>Oustaletia</i> ) <i>Pegasus</i><br><i>Pterolichus</i> ( <i>Pseudalloptes</i> )<br><i>Fürstembergi</i><br><i>Pterolichus vexillarius</i> var. <i>minor</i>                                  |
| Penolopides Manillae   | <i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>fissiventris</i><br><i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>ptero-</i><br><i>colurus</i>                                                                     |
| Rhyticeros plicatus    | <i>Pterolichus</i> ( <i>Oustaletia</i> ) <i>Pegasus</i><br><i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>Berleseii</i><br><i>Pterolichus</i> ( <i>Pseudalloptes</i> ) <i>fissiventris</i>                         |
| Tockus erythrorhynchus | <i>Pterolichus vexillarius</i> var. <i>minutus</i>                                                                                                                                                                 |
| Tockus melanoleuchus   | <i>Pterolichus vexillarius</i> var. <i>minutus</i>                                                                                                                                                                 |
| Rhinoplax vigil        | <i>Pterolichus vexillarius</i>                                                                                                                                                                                     |

### Tribus Heterodaetylae

#### Trogonidae

|                     |                                  |
|---------------------|----------------------------------|
| Trogon curucui      | <i>Pterolichus biemarginatus</i> |
| Trogonurus collaris | <i>Pterodectes Trogonis</i>      |
| Harpactes rutilus   | <i>Pterodectes Trogonis</i>      |

### Tribus Zigodaetylae

#### Rhamphastidae

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Aulacops caeruleicinctus       | <i>Pterolichus pteronyssoides</i><br><i>Xolalges analginus</i> |
| Aulacorhynchus caeruleogularis | <i>Pterolichus ramphastinus</i>                                |
| Barbatula leucoloema           | <i>Pterocolus elegans</i><br><i>Pteronyssus conurus</i>        |

|                                  |                                                   |
|----------------------------------|---------------------------------------------------|
| <i>Pteroglossus aracari</i>      | <i>Pterolichus ramphastinus</i>                   |
|                                  | <i>Pteronyssus chiasma</i>                        |
|                                  | <i>Pterocolus gracilipinnatus</i>                 |
| <i>Pteroglossus sulcatus</i>     | <i>Protalges Robinii</i>                          |
| <i>Rhamphastos dicolorus</i>     | <i>Pteronyssus chiasma</i> var. <i>mucronatus</i> |
|                                  | <i>Pterolichus ramphastinus</i>                   |
| <i>Selenidra maculirostris</i>   | <i>Pterocolus gracilipinnatus</i>                 |
| <b>Capitonidae</b>               |                                                   |
| <i>Capito auratus</i>            | <i>Pterolichus biemarginatus</i>                  |
| <i>Capito cayennensis</i>        | <i>Pteronyssus bifidus</i>                        |
| <i>Pogonorhynchus bidentatus</i> | <i>Pteronyssus comurus</i>                        |

### Tribus Coccyges

#### Cuculidae

|                                 |                                   |
|---------------------------------|-----------------------------------|
| <i>Centropus viridis</i>        | <i>Pterocolus bifurcatus</i> var. |
| <i>Chrysococcyx smaragdinus</i> | <i>Allanalges podagricus</i>      |
| <i>Coccyzus americanus</i>      | <i>Pterolichus Cuculi</i>         |
| <i>Piaya cayana</i>             | <i>Pterolichus Cuculi</i>         |
| <i>Cuculus canorus</i>          | <i>Pterolichus Cuculi</i>         |
|                                 | <i>Xolalges scaurus</i>           |

#### Musophagidae

|                               |                                   |
|-------------------------------|-----------------------------------|
| <i>Corythaix macrorhyncha</i> | <i>Pterodectes trulla</i>         |
| <i>Corythaix Meriani</i>      | <i>Pterolichus microphyllus</i>   |
| <i>Corythaix purpurea</i>     | <i>Protalges circiniger</i>       |
|                               | <i>Pterolichus Musophagi</i>      |
|                               | <i>Pterolichus parallelilobus</i> |
| <i>Musophaga violacea</i>     | <i>Pteronyssus phyllophorus</i>   |
| <i>Schizornis africana</i>    | <i>Pterolichus Musophagi</i>      |
| <i>Schizornis concolor</i>    | <i>Dermoglyphus deformis</i>      |



## Saurognathae

## Tribus Pici

## Picidae

|                            |                                    |
|----------------------------|------------------------------------|
| Celeus elegans             | <i>Analges lobatus</i>             |
|                            | <i>Pteronyssus spathuliger</i>     |
| Picus maior                | <i>Pteronyssus picinus</i>         |
|                            | <i>Megninia Picimajoris</i>        |
| Picus medius               | <i>Pteronyssus brevipes</i>        |
| Gecinus viridis            | <i>Pteronyssus quadratus</i>       |
| Melanerpes erythrocephalus | <i>Pteronyssus simplex</i>         |
| Iyngidae                   |                                    |
| Lynx torquilla             | <i>Proctophyllodes glandarinus</i> |

## Aegithognathae

## Tribus Macrochires

## Caprimulgidae

|                   |                                  |
|-------------------|----------------------------------|
| Potages papuensis | <i>Megninia harpipodus</i>       |
|                   | <i>Megninia Laglaizae</i>        |
|                   | <i>Pterodectes phylloproctus</i> |

## Cypselidae

|                          |                                        |
|--------------------------|----------------------------------------|
| Cypselus alpinus         | <i>Pterolichus cultrifer</i>           |
| Cypselus apus            | <i>Alloptes Cypseli</i>                |
|                          | <i>Pterolichus cultrifer</i>           |
|                          | <i>Pterolichus securiger</i>           |
|                          | <i>Pterodectes rutilus</i>             |
|                          | <i>Pterocolus appendiculatus</i>       |
| Dendrochelidon mystaceus | <i>Pteronyssus (Mesalges) lyriodes</i> |

## Trochilidae

|                       |                                  |
|-----------------------|----------------------------------|
| Topaza pella          | <i>Pterodectes gracilior</i>     |
|                       | <i>Pterodectes selenurus</i>     |
|                       | <i>Pterodectes trochilidarum</i> |
| Petazophora iolata    | <i>Protalges longitarsus</i>     |
| Pterophanes Temmincki | <i>Protalges affinis</i>         |

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| <i>Aglaectis cupripennis</i>    | <i>Protalges affinis</i>                        |
|                                 | <i>Pterodectes alloptinus</i>                   |
| <i>Chrysolampis mosquitus</i>   | <i>Pterodectes gladiger</i>                     |
|                                 | <i>Pterodectes gracilior</i>                    |
|                                 | <i>Pterodectes trochilidarum</i>                |
| <i>Cyanthus mocoa</i>           | <i>Alloptes Norneri</i>                         |
|                                 | <i>Pterodectes selenurus</i>                    |
|                                 | <i>Pterodectes trochilidarum</i>                |
| <i>Eulampis holosericeus</i>    | <i>Epidermoptes cephalotes</i>                  |
| <i>Eulampis iugularis</i>       | <i>Protalges longitarsus</i>                    |
|                                 | <i>Pterodectes gladiger</i>                     |
| <i>Euxoteres aquila</i>         | <i>Alloptes aviculicaulis</i>                   |
|                                 | <i>Alloptes scissus</i>                         |
|                                 | <i>Analges bidentatus</i> var. <i>cabaratus</i> |
|                                 | <i>Paralges maior</i>                           |
| <i>Heliantea Bonapartei</i>     | <i>Proctophyllodes fenestralis</i>              |
| <i>Lophornis ornatus</i>        | <i>Pterodectes gracilior</i>                    |
|                                 | <i>Pterodectes trochilidarum</i>                |
| <i>Lampornis viridis</i>        | <i>Pterodectes gladiger</i>                     |
| <i>Phaeotornis longirostris</i> | <i>Alloptes aviculicaulis</i>                   |
|                                 | <i>Dermoglyphus maior</i>                       |
| <i>Thalurania columbica</i>     | <i>Pterodectes gracilior</i>                    |
| <i>Gryphus naevius</i>          | <i>Pterodectes gracillimus</i>                  |

### Tribus Passeres

#### α OSCINAR

*Latirostris*

#### Hirudinidae

*Chelidon urbica*

*Pteronyssus obscurus*

*Pterodectes rutilus*

*Pterocolus appendiculatus* var. *minutipes*

*Cotyle riparia*

*Pteronyssus obscurus*

*Pteronyssus Nuntiae-veris*

*Pterocolus appendiculatus*

*Microchelicon hirundinacea*

*Alloptes securiger*

*(Dentirostres)***Muscicapidae**

Muscicapa griseola  
 Todopsis cyanocephala

*Pteronyssus integer*  
*Xolalges spinosus*

**Laniidae**

Lanius excubitor

*Pterocolus gracilipes*  
*Pterodectes*  
*Proctophyllodes glandarinus*

**Ampelidae**

Ampelis garrula

*Proctophyllodes Ampelidis*

**Mniotilidae**

Mniotila citrea

*Pterocolus bilaniatus*

**Paridae**

Parus caudatus  
 Parus caeruleus

*Proctophyllodes glandarinus*  
*Pteronyssus parinus*  
*Analges mucronatus*  
*Proctophyllodes styliifer*

Lophophanes cristatus

*Analges passerinus*  
*Pteronyssus integer*

Parus maior

*Proctophyllodes glandarinus*

Parus minor

*Proctophyllodes glandarinus*

Milvulus tyramnus

*Pterodectes gracilis*

**Accentoridae**

Accentor modularis

*Proctophyllodes megaphyllus*  
*Alloptes Modularis*  
*Analges pollicipatus*

**Sylviidae**

Calamodyta aquatica  
 Monachus atricapillus

*Pterocolus bifurcatus*  
*Analges clavipes*  
*Proctophyllodes glandarinus*  
*Proctophyllodes glandarinus*  
*Proctophyllodes glandarinus*  
*Pterocolus Edwardsii*

Erythacus rubecula

Sylvia phoenicurus

Sylvia rubiginosa

|                                  |                                          |
|----------------------------------|------------------------------------------|
| <i>Sylvia turdoides</i>          | <i>Pterocolus Edwardsii</i>              |
| <b>Troglodytidae</b>             |                                          |
| <i>Troglodytes parvulus</i>      | <i>Analges passerinus</i>                |
| <b>Turdidae</b>                  |                                          |
| <i>Galeoscoptes Carolinensis</i> | <i>Megninia Tyrellii</i>                 |
| <i>Nemura superba</i>            | <i>Pterodectes maior</i>                 |
| <i>Cyanecula suecica</i>         | <i>Heteropsorus pteroptopus</i>          |
|                                  | <i>Proctophyllodes caulifer</i>          |
| <i>Notodela leucura</i>          | <i>Pterodectes pennifer</i>              |
| <i>Turdus iliacus</i>            | <i>Proctophyllodes glandarinus</i>       |
| <i>Turdus musicus</i>            | <i>Proctophyllodes glandarinus</i>       |
| <i>Turdus saxatilis</i>          | <i>Proctophyllodes glandarinus</i>       |
| <i>Turdus merula</i>             | <i>Proctophyllodes glandarinus</i>       |
| <b>Motacillidae</b>              |                                          |
| <i>Anthus arboreus</i>           | <i>Proctophyllodes glandarinus</i>       |
| <i>(Conirostres)</i>             |                                          |
| <b>Alaudidae</b>                 |                                          |
| <i>Alauda arvensis</i>           | <i>Analges tridentulatus</i>             |
|                                  | <i>Pterodectes bilobatus</i>             |
| <i>Alauda cristata</i>           | <i>Pterodectes bilobatus</i>             |
| <i>Eremophila alpestris</i>      | <i>Pterodectes reticulifer</i>           |
| <i>Otocorys cornuta</i>          | <i>Pterodectes reticulifer</i>           |
| <b>Emberizidae</b>               |                                          |
| <i>Miliaria europaea</i>         | <i>Alloptes hemiphyllus</i>              |
| <i>Emberiza cirrus</i>           | <i>Heteropsorus pteroptopus</i>          |
| <i>Emberiza schoeniclus</i>      | <i>Heteropsorus pteroptopus</i>          |
| <i>Emberiza citrinella</i>       | <i>Proctophyllodes glandarinus</i>       |
| <b>Fringillidae</b>              |                                          |
|                                  | <i>(Rivoltasia uncinata in exoticis)</i> |
| <i>Loxia pityopsittacus</i>      | <i>Analges Poppei</i>                    |
| <i>Loxigella noctis</i>          | <i>Pterodectes internodius</i>           |
| <i>Linota</i>                    | <i>Proctophyllodes arcuaticaulis</i>     |

**Fringilla****Fringilla montifringilla**

Carduelis elegans

Coccothraustes vulgaris

Passer domesticus

**Strobilophaga enucleator**

Serinus canarius

**Ploceidae**

Ortygodesctes polyzona

Munia maja

Vidua paradisica

Estrilda

Acanthis

**Tanagridae**

Anisognathus lunulatus

Tangaras

(Cultrirostres)

**Sturnidae**

Calornis cantor

Calornis chalybaea

Calornis panayensis

Dendroecia aestiva

Dendroecia striata

Eulabis javannensis

Eulabis religiosa

Lamprotornis sp.

*Proctophyllodes glandarinus* (?)*Pteronyssus striatus**Alloptes microphyllus**Alloptes hemiphyllus**Alloptes hemiphyllus**Proctophyllodes glandarinus**Proctophyllodes glandarinus**Epidermoptes bifurcatus* var. *dermicola**Microlichus avus**Heteropsorus pteroptopus**Alloptes aphyllus**Dermoglyphus elongatus**Pterodectes bacillus**Cnemidocoptes fossor**Epidermoptes uncinatus**Dermoglyphus elongatus**Proctophyllodes arcuaticaulis**Pterocolus gracilipinnatus**Pterocolus gracilipinnatus**Pterolichus cataphractus**Pterolichus cataphractus**Pteronyssus subtruncatus**Xolalges analginus**Analges digitatus**Pterodectes Mainati**Pteronyssus subtruncatus**Pterocolus Eulabis**Pterocolus corvinus**Pteronyssus truncatus*



|                                  |                                                 |
|----------------------------------|-------------------------------------------------|
| <i>Pastor roseus</i>             | <i>Pterocolus corvinus</i>                      |
| <i>Psacolius citrius</i>         | <i>Pterocolus gracilipinnatus</i>               |
|                                  | <i>Pterodectes gracilis</i>                     |
| <i>Sturnus vulgaris</i>          | <i>Pterocolus corvinus</i> var. <i>Rosterii</i> |
|                                  | <i>Pteronyssus truncatus</i>                    |
| <i>Gracula robusta</i>           | <i>Analges hoplophorus</i>                      |
| <i>Lamprocolius glaucovirens</i> | <i>Pterodectes Mainati</i>                      |

### Paradiseidae

|                          |                                 |
|--------------------------|---------------------------------|
| <i>Astrapia nigra</i>    | <i>Pteronyssus hypposates</i>   |
|                          | <i>Pteronyssus latior</i>       |
| <i>Epimachus maximus</i> | <i>Megninia Laglaizae</i>       |
| <i>Paradisea minor</i>   | <i>Pterodectes paradisiacus</i> |
| <i>Sericulus melinus</i> | <i>Pterocolus corvinus</i>      |
|                          | <i>Pterodectes paradisiacus</i> |
| <i>Manucodia atra</i>    | <i>Megninia pappus</i>          |
|                          | <i>Alloptes syringophorus</i>   |

### Dicruridae

|                          |                             |
|--------------------------|-----------------------------|
| <i>Chibia carbonaria</i> | <i>Xolalges astacopodus</i> |
|--------------------------|-----------------------------|

### Corvidae

|                                    |                                                                                         |
|------------------------------------|-----------------------------------------------------------------------------------------|
| <i>Cissa thalassina</i>            | <i>Megninia megalixus</i>                                                               |
| <i>Corvus corax</i>                | { <i>Pterolichus delibatus</i><br><i>Analges corvinus</i><br><i>Pterocolus corvinus</i> |
| <i>Corvus corone</i>               |                                                                                         |
| <i>Corvus frugilegus</i>           |                                                                                         |
| <i>Corvus cornix</i>               |                                                                                         |
| <i>Corvus crassirostris</i>        | <i>Pterolichus delibatus</i>                                                            |
| <i>Corvus scapulatus</i>           | <i>Pterolichus delibatus</i>                                                            |
| <i>Corvultur albicollis</i>        | <i>Pterolichus delibatus</i>                                                            |
| <i>Cyanocorax hyacinthinus</i>     | <i>Pterocolus gracilipinnatus</i>                                                       |
| <i>Cyanocorax pileatus</i>         | <i>Pterodectes gracilis</i>                                                             |
|                                    | <i>Pterolichus delibatus</i>                                                            |
| <i>Cyanocorax violaceus</i>        | <i>Falciger cornutus</i>                                                                |
| <i>Cyanurus cristatus</i>          | <i>Megninia aculeata</i>                                                                |
| <i>Cymbirhynchus macrorhynchus</i> | <i>Megninia gracilipes</i> var.                                                         |
| <i>Garrulus glandarius</i>         | <i>Megninia Glandarii</i>                                                               |

*Pica caudata*

*Xanthoura yncas*

(*Tenuirostres*)

### Meliphagidae

*Glyciphila fasciata*

*Anthornis melanura*

*Meliornis sericea*

*Melliophates leucostephus*

*Pterolichus delibatus*

*Pterodectes gracilis*

*Protalges australis*

*Pterodectes manicatus*

*Protalges australis* var. *antipodum*

*Alloptes lobulatus*

*Megninia effeminata*

*Xolalges analginus* var. *pessophorus*

*Alloptes lonchophorus*

*Pterocolus rotifer*

*Pterodectes securiclatus*

### Promeropidae

*Nectarinia afra*

*Pterodectes megacaulis*

### β OLIGOMYDAE

### Tyrannidae

*Elaena martinica*

*Dermoglyphus vermicularis*

*Pterodectes intermedius*

*Xolalges analginus*

### Pipridae

*Pipra aureola*

*Alloptes dielythra*

*Alloptes pteronyssoides*

*Pipra erythrocephala*

*Alloptes dielythra*

*Alloptes pteronyssoides*

### Cotingidae

*Pyroderus scutatus*

*Pterolichus Pyroderi*

*Cotinga*

*Pterocolus gracilipinnatus*

### Eurylainidae

*Eurylainus ochromelas*

*Proctophyllodes intermedius*

*Pterocolus bifurcatus*

*Pterodectes Mainati*

Parisonus Dalhousiae

*Pterodectes xiphiurus*  
*Pterocolus gracilipes*

$\gamma$  (*Pseudoscines*)

**Menuridae**

Menura superba

*Pterodectes maior*

## P

Super mammalia

### Ordo **Marsupialia**

Marsupialia

*Chiroidiscus amplexans*  
*Campylochyrus*

Phalangista Cooki

*Campylochirus chelopus*

Didelphys

*Campylochyrus* sp.

### Ordo **Ungulata**

Sus Scropha

*Sarcoptes Suis*  
*Sarcoptes parvulus*

### Tribus Tylopoda

Camelus dromedarius

*Sarcoptes Dromedarii*

Camelus Bactrianus

*Sarcoptes Dromedarii*

Auchenia Lama

*Sarcoptes Dromedarii*

### Tribus **Cotylophora**

Giraffa

*Sarcoptes Dromedarii*

Antilope bubalus

*Sarcoptes Dromedarii*

Antilope rupicapra

*Sarcoptes Rupicaprae*

Gazella

*Psoroptes Gazellae*

|              |                                                                              |
|--------------|------------------------------------------------------------------------------|
| Capra Hircus | <i>Sarcoptes Ovis</i><br><i>Sarcoptes Caprae</i>                             |
| Ovis Aries   | <i>Sarcoptes Ovis</i><br><i>Psoroptes Ovis</i>                               |
| Bos taurus   | <i>Sarcoptes Caprae</i><br><i>Psoroptes Bovis</i><br><i>Chorioptes Bovis</i> |

#### Tribus Peryssodactila

|                |                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------|
| Equus Caballus | <i>Sarcoptes Caprae?</i><br><i>Sarcoptes Equi</i><br><i>Psoroptes Equi</i><br><i>Chorioptes Equi</i> |
| Equus asinus   | <i>Sarcoptes Equi</i><br><i>Psoroptes Equi</i>                                                       |
| Mulo           | <i>Sarcoptes Equi</i><br><i>Psoroptes Equi</i>                                                       |

#### Tribus Proboscidea

|         |                             |
|---------|-----------------------------|
| Elephas | <i>Sarcoptes Elephantis</i> |
|---------|-----------------------------|

#### Ordo Rodentia

##### Tribus Duplicidentata

|                 |                                                                                    |
|-----------------|------------------------------------------------------------------------------------|
| Lepus cuniculus | <i>Sarcoptes praecox</i><br><i>Notoedrus Cuniculi</i><br><i>Psoroptes Cuniculi</i> |
| Lepus timidus   | <i>Listrophorus gibbus</i>                                                         |

##### Tribus Simplicidentata

|                         |                                |
|-------------------------|--------------------------------|
| Dendromys               | <i>Campylochirus</i> sp.       |
| Otomys                  | <i>Campylochirus</i> sp.       |
| Crycetomys              | <i>Campylochirus</i> sp.       |
| Anomalurus erythronotus | <i>Campylochirus adhaerens</i> |

|                              |                                                  |
|------------------------------|--------------------------------------------------|
| <i>Sciurus vulgaris</i>      | <i>Glycyphagus sciurinus</i>                     |
| <i>Hydrochoerus Capybara</i> | <i>Sarcoptes Hydrochoeri</i>                     |
| <i>Phascolomys Wombat</i>    | <i>Sarcoptes Wombati</i>                         |
| <i>Myoxus glis</i>           | <i>Myocoptes glirinus</i>                        |
| <i>Castor fiber</i>          | <i>Schizocarpus Migaudi</i>                      |
| <i>Mus rattus</i>            | <i>Notoedrus Muris</i>                           |
| <i>Mus decumanus</i>         | <i>Listrophorus cucullatus</i>                   |
|                              | <i>Notoedrus Muris</i>                           |
| <i>Mus musculus</i>          | <i>Myocoptes musculinus</i>                      |
| <i>Arvicola agrestis</i>     | <i>Myocoptes tenax</i>                           |
| <i>Arvicola amphibius</i>    | <i>Notoedrus Muris</i>                           |
|                              | <i>Listrophorus Leukarti</i>                     |
| <i>Cricæetus</i>             | <i>Myocoptes Cricæti</i>                         |
| <i>Heterocephalus glaber</i> | <i>Acotylopus Canestrinii</i> (nymphæ<br>hypop.) |

#### Ordo **Insectivora**

|                           |                           |
|---------------------------|---------------------------|
| <i>Talpa europæa</i>      | <i>Glycyphagus Talpæ</i>  |
| <i>Erinaceus europæus</i> | <i>Caparinia tripilis</i> |

#### Ordo **Chiroptera**

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| <i>Rhinolophus ferrum-equinum</i> | <i>Cheirocoptes chiropteralis</i> |
|                                   | <i>Labidocarpus Rollinati</i>     |
|                                   | <i>Labidocarpus megalonyx</i>     |
| <i>Vesperugo serotinus</i>        | <i>Cheirocoptes chiropteralis</i> |
| <i>Vespertilio noctula</i>        | <i>Glycyphagus pterophorus</i>    |

#### Ordo **Carnivora**

|                      |                                  |
|----------------------|----------------------------------|
| <i>Putorius furo</i> | <i>Otodectes Furonis</i>         |
|                      | <i>Sarcoptes Hydrochoeri</i> (?) |
|                      | <i>Sarcoptes Furonis</i>         |
| <i>Vulpes</i>        | <i>Caparinia Vulpis</i>          |
|                      | <i>Sarcoptes Vulpis</i>          |



|                  |                                                                             |
|------------------|-----------------------------------------------------------------------------|
| Canis familiaris | <i>Otodectes cynotis</i><br><i>Sarcoptes Canis</i><br><i>Sarcoptes Ovis</i> |
| Canis lupus      | <i>Sarcoptes Lupi</i>                                                       |
| Hyaena           | <i>Caparinia Hyaenae</i>                                                    |
| Felis cattus     | <i>Notoedrus Cati</i><br><i>Otodectes cynotis</i>                           |
| Felis Leo        | <i>Sarcoptes Leonis</i>                                                     |

### Ordo **Primates**

|              |                                                                                                                                                                                                                           |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Homo sapiens | <i>Sarcoptes Hominis</i><br><i>Sarcoptes-scabiei crustosae</i><br><i>Sarcoptes Canis</i><br><i>Sarcoptes Equi</i><br><i>Sarcoptes Suis</i><br><i>Sarcoptes Ovis</i><br><i>Sarcoptes Caprae</i><br><i>Sarcoptes Leonis</i> |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### De acaris huius ordinis colligendis adservandisque

Acaros huius familiae parasitas, si super mammalem, animali hoc exciso, postera die super eius pilos colliges et in praeparationibus ad microscopii usum servabis, quod minimi sint. Species super aves, quia chitina duriori circumdatas, colligere potes etiam exiccatas et quod difficilius hospites suos relinquant, etiam in pellibus exiccatis avium, multum post mortis tempus inquirere ed invenire potes, quod optime fecit cl. Trouessart. Exempla haec essiccata quae super chartae folium subtus extensum, plumas confricando (penicilli ope, vel aliter) vel concutiendo inciderunt, collecta et super vitrum imposita, per acidum aceticum calentem rursus ad veram formam reduces, et postea vel in *balsamo del canadà*, vel in *gelatina glicerinata* includes.

Acaros huius familiae liberos vel in praeparationibus vel in spiritu vini adservabis, nec colores dealbabuntur.

## GLOSSARIUM

NOMINA COMPREHENDENS IN SARCOPTIDARUM DESCRIPTIONE OCCURRENTIA

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**Ambulaera** sive organa per quae animalcula ceteris corporibus adfiguntur, varie conformata sunt, vel unco (aut uncis simplicibus) vel membranulis chitineis aut sacculis subglobosis.

**Anus** sive foramen anale in dorso nonnullarum specierum (*Notoedrus*) aperitur, ceterum ad extremum ventrem.

**badius** color rarior est, aliquando inter analgesidas.

**Chela** mandibulae crassiuscula, digitis subaequalibus est in speciebus plurimis; in ceteris serrulata apice mandibula est.

**Color** per hyalinum, albescentem, terreum, ochraceum, ochraceo-badium vel ochraceo fuligineum in subfuligineum incurrit. In spiritu vini non dealbescit.

**Corpus** plus minusve trapezinum est, subhumeratum, vel subrotundatum, postice varie conformatum, in plurimis speciebus optimos praebet characteres ad species distinguendas.

**Coxa** primus est pedum articulus.

**Disculi adhaesionis**, si genitales sint, circa genitalia adsunt, clavatudi, minores; si copulatorii ad extremum abdomen maris in ventre conspicui; si in *hypopis*, ventrales sunt et tantum ad adhesionem super hospites dispositi. In maribus *Tyroglyphorum* etiam in tarso extremo sunt ad foeminam in copula tenendam.

**Disculi** copulationis, videas *adhesionis*.

**Disculi genitales** videas, *adhesionis*.

**Dimorphismus** perfrequens est inter marem foeminamque suam, praecipue in corporis pedumque fabrica, ergo dimorphismus sexualis est.

**Epiderma**, vel cuticula, sive extremum dermatis involucrum in scutis punctulatis, vel reticulatis, vel aliter ornatis incrassatur, ceterum molle striatumque. In nonnullis *Glycyphagis*, totius corporis epiderma est verruculosum. Color eius in scutis fuscior, ceterum pellucidum.

**Epimera** vittae sunt chitineae in ventre dispositae ad quae muscoli adnectuntur, pedum rostrique motores; epimera primi paris inter rostrum et coxam primam oriuntur et in pectore sunt porrecta, aliquando intersese apicibus plus minusve contigua; epimera secundi paris inter coxas primas et secundas exorta, tertii paris inter coxas secundas et tertias, quarti paris inter coxas tertias et quartas, postremi paris post quartas coxas, omnia in medio ventre directa, plus minusve intersese saepe coniuncta, vel genitalia marginantia.

**Epigynium** in nonnullis speciebus est sive vitta chitinea arcuata, antice vulvam marginans, aliquando cum epimeris cuiusdam paris concretum.

**Epistoma**, sive scutum dorsum antici occupans in nonnullis speciebus supra rostrum plus minusve est porrectum.

**fuscescens** color est fuligineo et ochraceo commixtus.

**fuscus** si fuligineo sit ditior.

**Haustellum**; in unico genere *Cytodites* in haustellum organa buccalia deformantur ad succos hauriendos conformatum.

**hexapodae** larvae sunt.

**Humeri** sive abdominis anterioris margines prominuli, setis plerumque aucti.

**hyalinus** color perfrequens, praecipue in pullis.

**Hypopus** nympha quaedam est a ceteris formis speciei valde diversa, ad migrationes apta, in *Analgesidis*, *Tyroglyphidis*que hucusque nota.

**Labium inferius**, sive hypostoma cum maxillis concretum, est parvolum et rostri basim inferam sistit.

**Larvae** dicantur pulli vix ex ovo exhorti, vel a matre sua generati, plerumque hexapodae.

**liberi** sunt acari huius ordinis ex familia *Tyroglyphidarum*, ceteri super alia animalia inquirendi.

**Lingula** minor inter maxilla producta vix conspicitur.



**Mandibulae**, sive cheliceri, mediocres sunt, haud retractiles protractilesve, plerumque cheligerae, rarius in serrulam terminatae.

**Maxillae** minores, lobiformes ad latera rostri instant. In genere *Listrophorus* maxillae deformantur in organa maiora ad pilos hospitis amplexandos apta.

**Membranulae** hyalinae, varie conformatae quasi ornamenti appendices sunt in plurimis speciebus, praecipue *Analgesidarum*, abdomen, praecipue posticum, adornantes.

**Metamorphoses** sunt maris, de larva hexapoda in nympham octopodam et denique in adultum, foeminae de larva hexapoda in nymphas duas et denique in adultum.

**Migrations** bene conficiuntur per *hypopos*.

**Nympha** forma est haud sexuata, pedibus quatuor aucta; nympha secunda in coitu cum mari suo coniungitur, post quem in adultum vulvigerum et parturientem mutatur,

**Palpi** minores bi-vel triarticulati sunt, vix conspicui, semper cylindrici, simplices.

**Parasitae** sunt plures huius ordinis species, vel nullum malum hospiti facientes, super eius epiderma in pilis vel plumis occurrentes, eius excreatis victitantes, vel parasitae graviores, scabiem inducentes.

**Plenis** vel minusculus unciformis, vel longior flagelliformis in medio ventre stat, chitineus.

**Pedes** quinque-articulati sunt, rarius quadriarticulati, variae magnitudinis, aliquando in maribus diverse quam in faeminis suis conformati, in *Listrophoridis* nonnullis ad pilos hospitis amplexandos in spathulas deformati.

**Pili**, vel setae corpus vel pedes adornantes, vel simplices variae longitudinis, tunc longissimi, vel breviores, spiniformes vel plumosuli, vel barbatuli aut late plumiformes vel foliiformes, flabellati etc.

**Polymorphismus** sexualis in multis speciebus, praecipue ex analgesidis est, quod mares eiusdem speciei vel foeminis suis subsimiles, quasi minus evoluti (*mares homcomorphi*), vel a foeminis suis diversissimi (*mares heteromorphi*).

**Rostrum**, breve, conicum, subapicale, maxillis, mandibulis, palpis, labio inferiori est constitutum.

**Scutula** quaedam sunt in dorso, unum anticum fre-

quentius, aliud vel alia abdominalia minus obvia, tamen in *Analgesidis* fere semper praesentia.

**Sulcus cephalothoracicus**, sive inter anticum et abdomen, praecipue ad dorsum, conspicuum, fere semper adest.

**Seta tactilis** in plurimis speciebus est, brevis, truncata, ad basim tarsi primi secundique parvis manifesta.

**terreus**, sive obsolete ochraceus color est inter omnes frequentior in acaris istis, praecipue in scutis, epimeris, disculis, rostro pedibusque.

**Vulva** semper ventralis est, plerumque longitudinalis vel angulatim anterieus aperta.





# CONSPECTUS SPECIERUM

ORDINIS CRYPTOSTIGMATUM (PRIMAE SECTIONIS)

HUCUSQUE IN ITALIA REPERTARUM VEL SUPER ANIMALIA

IN ITALIA OCCURRENTIA, INQUIRENDARUM,

SECUNDUM ORDINEM ALPHABETICUM DISPOSITARUM,

ANNIS ILLARUM INVENTIONIS, ETYMOLOGIA ED PATRIA ADDITIS.



| Speciei nomen              | Auctor (vel auctores)<br>qui primitus speciem<br>invenerunt<br>et quo tempore | Auctor (vel auctores)<br>qui in alio genere<br>speciem inseverunt<br>et quo tempore |
|----------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Aleurobius Farinae         | De Geer 1744                                                                  | Canestrini 1888                                                                     |
| Alloptes aphyllus          | Trouessart 1885                                                               |                                                                                     |
| > crassipes                | Canestrini 1878                                                               | Canestrini 1879                                                                     |
| > Cypseli                  | Canestr. et Berl. 1881                                                        |                                                                                     |
| > flagellicaulus           | Trouess. et Neum. 1888                                                        |                                                                                     |
| > hemiphyllus              | Robin 1877                                                                    | Trouessart 1885                                                                     |
| > microphyllus             | Robin 1877                                                                    | Trouessart 1885                                                                     |
| > Modularis                | Berl. 1896                                                                    |                                                                                     |
| > quadrisetatus            | Berl. 20 febr. 1886                                                           |                                                                                     |
| Analges bidentatus         | Giebel 1870                                                                   |                                                                                     |
| > clavipes                 | Berl. 20 nov. 1884                                                            |                                                                                     |
| > corvinus                 | Mégn. 1877                                                                    |                                                                                     |
| > incertus                 | Berl. 20 nov. 1884                                                            |                                                                                     |
| > mucronatus               | Buchholz 1870                                                                 | Berlese 20 nov. 1884                                                                |
| > Nitzschii                | Haller 1877                                                                   |                                                                                     |
| > pachynemius              | Giebel 1870                                                                   |                                                                                     |
| > passerinus               | Degeer 1744                                                                   | Rob. et Mégn. 1877                                                                  |
| > tridentulatus            | Haller 1877                                                                   |                                                                                     |
| Analges unidentatus        | Berl. 30 mart. 1886                                                           |                                                                                     |
| Analloptes Megninii        | Trouess. 1885                                                                 |                                                                                     |
| > pallens                  | Trouess. et Neum. 1888                                                        |                                                                                     |
| > Stellaris                | Buchh. 1870                                                                   | Trouessart 1885                                                                     |
| Bdellorhynchus polymorphus | Trouess. et Mégn. 1885                                                        |                                                                                     |
| Canestrinia Blaptis        | Canestr. et Berl. 1881                                                        | Berlese 30 apr. 1886                                                                |
| > Cerambicis               | Canestr. 1878                                                                 | Berlese 30 apr. 1886                                                                |
| > dorcicola                | Berl. 1881                                                                    |                                                                                     |
| > Giardi                   | Trouess. (in litt.) 1897                                                      |                                                                                     |
| > Procrusti                | Berl. 1881                                                                    |                                                                                     |

| Etymologia                                                 | Patria speciesum *                                   |
|------------------------------------------------------------|------------------------------------------------------|
| nominis specifici                                          |                                                      |
| Super Farinam diutius asser-<br>vatam inquirendus          | Tota Europa                                          |
| Foliolis mas in extremo abdo-<br>mine caret                | Gallia                                               |
| Pedibus quarti paris crassio-<br>ribus                     | Italia, Germania, Gallia etc.<br>Italia, Gallia etc. |
| Super <i>Cypselus apus</i>                                 | Gallia                                               |
| Propter penem longissimum                                  |                                                      |
| Quia foliolis dimidiatis mas in<br>extremo abdomine gaudet | Gallia, Italia, etc.                                 |
| Propter parvula folia in extre-<br>mo abdomine maris       | Gallia, tota Europa<br>Italia, Gallia                |
| Super <i>Accentor modularis</i>                            | Italia                                               |
| Setis quatuor postices in mari                             |                                                      |
| Calcaribus duobus mas in pe-<br>dibus tertii paris gaudet  | Germania-Italia, Gallia.                             |
| Propter fabricam pedum tertii<br>paris in mari             | Italia-Gallia.                                       |
| Super Corvos obvius                                        | Gallia-Italia, Germania.                             |
| Quia mas homeom, est <i>A. cla-<br/>vipedis</i>            | Italia-Gallia.                                       |
| Propter maris abdominis mu-<br>cronem posticum             |                                                      |
| Cl. Nitzsch species dicata                                 | Germania-Italia, Gallia.                             |
| παχύς crassus, πύμη tibia                                  | Germania-Italia, Gallia.                             |
| Passeres incolens                                          | Germania-Gallia, Italia.                             |
| Calcaribus tribus in pedibus<br>tertii paris maris auctus  | Tota Europa.                                         |
| Calcar unico mas in pedibus<br>tertii paris auctus         | Germania-Italia, Gallia.                             |
| Cl. P. Megnin species dicata                               | Italia.                                              |
| Propter colorem pallide terreum                            | Gallia                                               |
| Super <i>Botaurus stellaris</i> in-<br>ventus              | Gallia                                               |
| Quia mas polymorphus est.                                  |                                                      |
| Super coleopteros generis                                  | Tota Europa                                          |
| <i>Blaps</i> colligendus                                   | Gallia-Italia.                                       |
| Super Cerambices inventus                                  | Italia                                               |
| Quia super Dorcum parallele-<br>pipedum est inquirenda     | Italia                                               |
| Cl. Giard species dicata                                   | Italia                                               |
| Super Procrustem coriaceum                                 | Gallia                                               |
|                                                            | Italia                                               |

\* Nomen regionis sublineatum indicat locum ubi primitus species est comperta.

| Speciei nomen                         | Auctor (vel auctores)<br>qui primitus speciem<br>invenerunt<br>et quo tempore | Auctor (vel auctores)<br>qui in alio genere<br>speciem inseverunt<br>et quo tempore |
|---------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Caparinia tripilis                    | Michael 1889                                                                  | Canestrini 1894                                                                     |
| »    Vulpis                           | Megnin 1880                                                                   | Canestrini 1894                                                                     |
| Carpoglyphus passularum               | Foumouze et Rob. 1867                                                         | Berlese 1897                                                                        |
| Chirocotes chiropteralis              | Trouessart 1896                                                               |                                                                                     |
| Choriopotes Bovis                     | Gerlach 1857                                                                  | Canestrini 1894                                                                     |
| »    Equi                             | Hering 1835                                                                   | Canestrini 1894                                                                     |
| Chortoglyphus arcuatus                | Troupeau 1878                                                                 | Moniez 1894                                                                         |
| Cnemidocotes Columbae                 | Railliet 1887                                                                 | Canestrini 1894                                                                     |
| »    Gallinae                         | Railliet 1888                                                                 | Canestrini 1894                                                                     |
| »    glaberrimus                      | Sicher 1893                                                                   |                                                                                     |
| »    mutans                           | Robin 1860                                                                    | Canestrini 1894                                                                     |
| »    philomelae                       | Sicher 1893                                                                   |                                                                                     |
| Coleopterophagus carbicola            | Berlese 20 iul. 1882                                                          |                                                                                     |
| »    Megninii                         | Berlese 1881                                                                  | Berlese 20 iul. 1882                                                                |
| Cytodites nudus                       | Vizioli 1870                                                                  | Méglin 1876                                                                         |
| Dermation bihamatum                   | Trouess. et Neum. 1888                                                        |                                                                                     |
| Dermoglyphus diplectron               | Trouessart 1896                                                               |                                                                                     |
| »    elongatus                        | Méglin 1877                                                                   |                                                                                     |
| »    minor                            | Nörner 1882                                                                   | Trouessart 1885                                                                     |
| »    varians                          | Trouess. 1886                                                                 |                                                                                     |
| Epidermoptes bilobatus                | Rivolta 1876                                                                  |                                                                                     |
| Falciger rostratus                    | Buchholz 1870                                                                 | Trouess et Mègn. 1885                                                               |
| Freyana anatina                       | Koch 1844 (*)                                                                 | Haller 1877                                                                         |
| »    anserina                         | Trouess. et Mègn. 1884                                                        |                                                                                     |
| »    pelargica                        | Trouess. et Mègn. 1884                                                        |                                                                                     |
| »    (Halleria) hirsutirostris        | Trouess. et Mègn. 1884                                                        |                                                                                     |
| »    (Michaelichus) Caput-<br>medusae | Trouess. 1886                                                                 |                                                                                     |
| »    (Michaelichus) hetera-<br>pus    | Michael 1881                                                                  | Trouess. et Mègn. 1884                                                              |
| »    (Microspalax) Chanay             | Trouess. et Mègn. 1884                                                        |                                                                                     |
| »    (Microspalax) mani-<br>cata      | Trouess. et Mègn. 1884                                                        |                                                                                     |
| Glycyphagus Canestrinii               | Armanelli 1887                                                                |                                                                                     |
| »    domesticus                       | De Geer 1744                                                                  | Berlese 20 sept. 1884                                                               |

(\*) Cu'usque fasciculi operis Kochii C. M. A. Deutschl. editionis tempus non dignosco.

Etymologia  
nominis specifici

Patria specierum

Quia setis sexposticis longiss.  
gaudet  
Super Vulpes  
Super fructos exiccatos  
Super Chiropteros  
Super Bovem taurum  
Super Equum caballum  
Cur hoc gaudeat nomine nescio  
Super Columbas  
Super Gallinas  
Quia pilis omnino destitutus  
Quia mas a foemina variat?  
Super Luxinia philomela  
Super Carabos collectus  
Cl. Mègnin species dicata  
Quia omnino setis destitutus  
Mas calcaribus duobus gaudet  
in pedibus tertii paris  
(πληκτρον)  
Propter corporis fabricam  
Propter staturam  
Quia mas valde variat  
Maris abdominis postici fabri-  
ca considerata  
Quia mas rostro maiori est  
praeditus  
Super Anates obvia  
Super Anseres colligenda  
Quia super Ciconias est in-  
venta.  
Quod rostrum dentibus est  
auctum  
Quia pedibus abnormibus, se-  
tulis, calcaribus, dentibus  
horrida est  
Quod mas pede uno ceteris  
maiori gaudet  
Cl. Chanay species dicata  
Quia tibiae in laminulas dila-  
tantur  
Cl. G. Canestrini species di-  
cata  
In domibus obvius

Britannia  
Gallia-Italia  
Tota Europa  
Gallia  
Europa-America  
Europa-America  
Gallia-Italia  
Gallia  
Gallia  
Italia  
Tota Europa, America  
Italia  
Italia  
Italia  
Italia, Gallia  
Gallia  
Gallia, Asia etc.  
Germania  
Gallia  
Italia-Gallia.  
Tota Europa, Nova Guinea  
Tota Europa, America  
Gallia-Africa  
Gallia-America  
Gallia Africa  
Europa-Philippinae-Australia Nova Zeelandia-  
America  
Britannia-Gallia  
America-Gallia  
Gallia-Oceanum Atlanticum austr.  
Italia  
Tota Europa



| Speciei nomen             | Auctor (vel auctores)<br>qui primitus speciem<br>invenerunt<br>et quo tempore | Auctor (vel auctores)<br>qui in alio genere<br>speciem inseverunt<br>et quo tempore |
|---------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Glycyphagus intermedius   | Canestrini 1888                                                               |                                                                                     |
| > ornatus                 | Kramer 1881                                                                   |                                                                                     |
| > palmifer                | Rob. et Fourn. 1868                                                           |                                                                                     |
| > peregrinans             | Berlese 10 febr. 1892                                                         |                                                                                     |
| > plumifer                | Rob. et Fourn. 1868                                                           |                                                                                     |
| > pterophorus             | Berlese 15 jan. 1891                                                          |                                                                                     |
| > spinipes                | Koch 1844                                                                     |                                                                                     |
| > Talpae                  | Kramer 1877                                                                   | Berlese (hic)                                                                       |
| > sciurinus               | Koch 1844                                                                     | Berlese (hic)                                                                       |
| Haemisarcoptes coccisugus | Linieres 1893                                                                 |                                                                                     |
| Hericia Robinii           | Robin 1868                                                                    | Canestrini 1888                                                                     |
| Heteropsorus pteroptopus  | Troues. et Neum. 1888                                                         |                                                                                     |
| Histiogaster carpio       | Kramer 1882                                                                   | Berlese 1883                                                                        |
| Histiostoma fimetarium    | Can. et Berl. 1881                                                            |                                                                                     |
| > flagellifer             | Leonardi 1896                                                                 |                                                                                     |
| > muscarum                | Linnè 1746                                                                    | Berlese 1881                                                                        |
| > phyllothricum           | Berlese 20 dic. 1883                                                          | Canestr. 1888                                                                       |
| > rostroserratum          | Mègnin 1873                                                                   | Berlese (hic)                                                                       |
| Labidocarpus megalonyx    | Trouessart 1895                                                               |                                                                                     |
| > Rollinati               | »                                                                             |                                                                                     |
| Laminosioptes cysticola   | Vizioli 1870                                                                  | Mègnin 1880                                                                         |
| Linocoptes Coccinellae    | Scopoli                                                                       | Berlese 10 iun. 1887                                                                |
| Listrophorus gibbus       | Pagenstecker 1861                                                             |                                                                                     |
| > Leukarti                | Pagenst. 1861                                                                 |                                                                                     |
| > Mustelae                | Mègnin 1885                                                                   |                                                                                     |
| > Pagensteckeri           | Haller 1880                                                                   |                                                                                     |
| Mealia longior            | Trouessart 1897 (in litt.)                                                    |                                                                                     |
| > pteronyssina            | Trouessart 1897 (in litt.)                                                    |                                                                                     |
| Megnina aestivalis        | Berl. 10 febb. 1886                                                           |                                                                                     |



| Speciei nomen             | Auctor (vel auctores)<br>qui primitus speciem<br>invenerunt<br>et quo tempore | Auctor (vel auctores)<br>qui in alio genere<br>speciem inseverunt<br>et quo tempore |
|---------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Megninia asternalis       | Mègnin 1877                                                                   | Trouessart 1885                                                                     |
| "    appendiculata        | Haller 1882                                                                   | Trouessart 1885                                                                     |
| <    centropodos          | Mègnin 1877                                                                   | Trouessart 1885                                                                     |
| <    Columbae             | Buchholz 1870                                                                 | Trouessart 1885                                                                     |
| >    cubitalis            | Mègnin 1877                                                                   | Berlese 20 feb. 1883                                                                |
| >    forcipata            | Haller 1882                                                                   | Trouessart 1885                                                                     |
| >    Gallinulae           | Buchholz 1870                                                                 | Trouessart 1885                                                                     |
| >    ginglymura           | Mègnin 1877                                                                   | Trouessart 1885                                                                     |
| >    Glandarii            | Buchh. 1870                                                                   | Trouessart 1885                                                                     |
| >    gracilipes           | Trouess. et Neum 1888                                                         | Berlese (hic.)                                                                      |
| >    grossa               | Berlese (hic.)                                                                |                                                                                     |
| >    Ibidis               | Trouessart 1885                                                               |                                                                                     |
| >    oscinum              | Koch 1844                                                                     | Trouessart 1885                                                                     |
| >    Picimajoris          | Buchholz 1870                                                                 | Trouessart 1885                                                                     |
| >    Strigisoti           | Buchholz 1870                                                                 | Trouessart 1885                                                                     |
| >    velata               | Mègnin 1877                                                                   | Trouessart 1885                                                                     |
| Microlichus Avus          | Trouess. et Neum. 1886                                                        |                                                                                     |
| >    Perdicis             | Canestrini 1894                                                               |                                                                                     |
| Moneziella aleurophaga    | Sicher 1894                                                                   | Berlese 1897                                                                        |
| >    entomophaga          | Laboulbene 1852                                                               | Berlese (hic)                                                                       |
| >    Mali                 | Shimer 1873                                                                   | Berlese 1897                                                                        |
| Myocoptes Cricaeti        | Poppe 1887                                                                    | Berlese (hic)                                                                       |
| >    glinrus              | Canestrini 1895                                                               |                                                                                     |
| >    musculus             | Claparede 1867                                                                |                                                                                     |
| >    tenax                | Michael 1889                                                                  |                                                                                     |
| Notoedrus Cati            | Hering 1835                                                                   | Canestrini 1894                                                                     |
| >    Cuniculi             | Gerlach 1857                                                                  | Canestrini 1894                                                                     |
| >    Muris                | Mègnin 1880                                                                   | Canestrini 1894                                                                     |
| Otodectes Cynotis         | Hering 1835                                                                   | Canestrini 1894                                                                     |
| >    Furonis              | Railliet 1887                                                                 | Canestrini 1894                                                                     |
| Pachyllichus crassus      | Canestrini 1894                                                               |                                                                                     |
| Proctophyllodes Ampelidis | Buchholz 1870                                                                 | Berlese 30 mart. 1886                                                               |
| >    arcuaticaulis        | Trouessart 1885                                                               |                                                                                     |
| >    glandarinus          | Koch 1844                                                                     | Robin 1877                                                                          |
| >    stylifer             | Buchholz 1870                                                                 | Berlese                                                                             |
| Protalges accipitrinus    | Trouessart 1885                                                               |                                                                                     |
| >    attenuatus           | Buchholz 1870                                                                 | Trouessart 1885                                                                     |

| Etymologia<br>nominis specifici                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Patria specierum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Quia epimera antica intersese discreta sunt</p> <p>Propter maris appendicibus ad pedes tertii paris</p> <p>Calcaribus in pedibus gaudens</p> <p>Super Columbas occurrens</p> <p>Propter maris tertii paris tibias longiores</p> <p>Quia mas postice bifidus est</p> <p>Super Gallinulas obvia</p> <p>Maris abdominis cornua apice quasi articulata sunt</p> <p>Super Garrulum glandarium</p> <p>Mas pedibus gracilioribus</p> <p>Quia mas crassus est</p> <p>Super Ibides collecta</p> <p>Super Oscines</p> <p>Super Picum maiorem obvia</p> <p>Super <i>Strix otus</i></p> <p>Quia maris abdominis cornua intersese membranula hyalina, quasi velo sunt coniuncta</p> <p>Super aves obuius</p> <p>Super Perdices</p> <p>Farinas erodens</p> <p>Quia insecta exiccata erodit</p> <p>Super Pyrum malum primitus collecta</p> <p>Super <i>Cricaetus</i> collectus</p> <p>Super <i>Myoxus glis</i> collectus</p> <p>Super Mures musculos</p> <p>Tenaciter adhaerens</p> <p>Super Felem Catum inquirendus</p> <p>Lepori Cuniculo infestus</p> <p>Super <i>Mus musculus</i> etc.</p> <p>Super Canes</p> <p>Super Furones</p> <p>Propter corporis crassitiem</p> <p>Super <i>Ampelis garrula</i></p> <p>Propter penem arcuatum</p> <p>Super <i>Garrulus glandarius</i>.</p> <p>Propter maris appendices posticas</p> <p>Super accipitres</p> <p>Maris abdomine considerato</p> | <p>Italia</p> <p>Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Germania, Gallia, Italia</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Germania</p> <p>Gallia</p> <p>Italia</p> <p>Gallia</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Gallia, Italia</p> <p>Italia</p> <p>Italia (Sicilia)</p> <p>Tota Europa</p> <p>America, Europa tota</p> <p>Germania</p> <p>Italia</p> <p>Tota Europa</p> <p>Britannia</p> <p>Tota Europa, America</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Italia</p> <p>Tota Europa</p> <p>Gallia</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Gallia</p> <p>Tota Europa</p> <p>Tota Europa</p> <p>Gallia</p> <p>Tota Europa</p> |



| Speciei nomen                                                                                                                                              | Auctor (vel auctores)<br>qui primitus speciem<br>invenerunt<br>et quo tempore                                                                                                                                                                                       | Auctor (vel auctores)<br>qui in alio genere<br>speciem inleverunt<br>et quo tempore |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Psoroptes</b> Bovis<br>" Cuniculi<br>" Equi<br>" Ovis                                                                                                   | Gerlach 1857<br>Méglin 1880<br>Gerlach 1857<br>Gerlach 1857                                                                                                                                                                                                         | Perroncito 1882<br>Perroncito 1882<br>Perroncito 1882<br>Perroncito 1882            |
| <b>Pterocolus</b> Actitidis<br>" analgoides                                                                                                                | Canestrini 1878<br>Trouessart 1885                                                                                                                                                                                                                                  | Canestrini 1886                                                                     |
| " appendiculatus                                                                                                                                           | Berlese 20 jan. 1886                                                                                                                                                                                                                                                |                                                                                     |
| " bifurcatus<br>" corvinus<br>" Edwardsii<br>" forficiger                                                                                                  | Trouessart 1885<br>Koch 1844<br>Trouessart 1885<br>Trouess. et Megn. 1884                                                                                                                                                                                           | Haller 1877<br>Berlese (hic)                                                        |
| " gracilipes<br>" Ortygometræ                                                                                                                              | Trouessart 1885<br>Canestrini 1878                                                                                                                                                                                                                                  | Trouessart 1885                                                                     |
| <b>Pterodectes</b> bilobatus<br>" cylindricus<br>" rutilus<br>" Trouessarti                                                                                | Robin 1877<br>Robin 1877<br>Robin 1877<br>Berlese 1897                                                                                                                                                                                                              |                                                                                     |
| <b>Pterolichus</b> Ardeæ<br>" Buchholzi<br>" Charadrii<br>" Ciconiæ<br>" Colymbi<br>" Cuculi<br>" cultrifer                                                | Canestrini 1878<br>Canestrini 1878<br>Canestrini 1878<br>Canest. et Berl. 1881<br>Canestrini 1878<br>Trouess. et Megn. 1884<br>Robin 1877                                                                                                                           | Canestrini 1879<br>Trouess. et Megn. 1884<br>Canestrini 1879                        |
| " delibatus<br>" eventratus                                                                                                                                | Robin 1877<br>Trouess. et Megn. 1884                                                                                                                                                                                                                                | Trouess. et Megn. 1884                                                              |
| " Fulicæ<br>" intermedius<br>" Limosæ<br>" marinus<br>" Martini<br>" Nisi<br>" Ninnii<br>" Numenii<br>" obtusus<br>" Otidis<br>" pallidus<br>" parallellus | Trouess. et Megn. 1880<br>Trouess. et Megn. 1884<br>Canestrini 1868<br>Trouess. 1886<br>Trouess. et Megn. 1884<br>Canestrini 1878<br>Canestrini 1878<br>Canestrini 1878<br>Robin 1877<br>Trouess. et Megn. 1884<br>Trouess. et Megn. 1884<br>Trouess. et Megn. 1884 | Canestrini 1879<br>Canestrini 1879<br>Canestrini 1879<br>Canestrini 1879            |
| " Phœnicopteri                                                                                                                                             | Trouess. et Megn. 1884                                                                                                                                                                                                                                              |                                                                                     |



Etymologia  
nominis specifici

Patria specierum

|                                                             |                                                   |
|-------------------------------------------------------------|---------------------------------------------------|
| Super Bovem taurum                                          | Tota Europa                                       |
| Super <i>Lepus cuniculus</i>                                | Tota Europa                                       |
| Super Equum caballum                                        | Tota Europa, America                              |
| Super oves                                                  | Tota Europa, America                              |
| Super <i>Actitis hypoleucbus</i>                            | Tota Europa                                       |
| Pedibus tertii paris in mari in-<br>crassatis               | Gallia, Malacca                                   |
| Quia foemina appendicula cir-<br>cinata inter caudas gaudet | Italia, Gallia, Germania                          |
| Proter maris abdomen                                        | Gallia, Italia, Malacca, Insale Phillippinae etc. |
| Super Corvos                                                | Tota Europa                                       |
| Cl. Edwards species dicata                                  | Gallia, Italia                                    |
| Mas abdomine postice forcicato<br>gaudet                    | Gallia                                            |
| Pedibus gracilibus mas estauctus                            | Gallia, Malacca                                   |
| Super <i>Ortygometra porzana</i>                            | Tota Europa                                       |
| Mas postice bilobus est                                     | Tota Europa                                       |
| Propter corporis fabricam                                   | Tota Europa                                       |
| Colore considerato                                          | Gallia                                            |
| Cl. Trouessart species dicata                               | Tota Europa etc.                                  |
| Super Ardeas                                                | Tota Europa, India                                |
| Cl. Buchholz species dicata                                 | Tota Europa etc.                                  |
| Super Charadrios                                            | Tota Europa                                       |
| Super Ciconias                                              | Tota Europa                                       |
| Super Colymbos                                              | Tota Europa, America                              |
| Super Cuculos                                               | Tota Europa                                       |
| Mas appendicibus cultriformibus<br>postice est auctus       | Tota Europa etc.                                  |
| Quia postice mas incisus est                                | Gallia                                            |
| Maris abdominis forma consi-<br>derata                      | Gallia                                            |
| Super Fulicas                                               | Gallia                                            |
| Propter staturam inter confines                             | Gallia                                            |
| Super Limosam                                               | Tota Europa                                       |
| Quia super Laros occurrit                                   | Gallia                                            |
| Cl. Martin species dicata                                   | Gallia                                            |
| Super Nisum collectus                                       | Tota Europa, Asia                                 |
| Cl. Ninni species dicata                                    | Tota Europa                                       |
| Super Numenius obvius                                       | Tota Europa                                       |
| Mas postice obtusus est                                     | Tota Europa, Asia                                 |
| Super <i>Otis houbara</i> collectus                         | Austro Europa, Africa                             |
| Propter colorem                                             | Gallia                                            |
| Marginibus corporis intersere<br>parallelis                 | Gallia                                            |
| Super Phoenicopterum anti-<br>quorum                        | Austro Europa                                     |

| Speciei nomen                                                                                                   | Auctor (vel auctores)<br>qui primitus speciem<br>invenerunt<br>et quo tempore                                              | Auctor (vel auctores)<br>qui in alio genere<br>speciem inseverunt<br>et quo tempore |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Pterolichus Porzanae<br>» proctogamus                                                                           | Canestrini 1878<br>Trouess. et Megn. 1884                                                                                  | Canestrini 1879                                                                     |
| » Rallorum<br>» Rehbergi<br>» securiger                                                                         | Trouess. et Mègn. 1884<br>Can. et Berl. 1881<br>Robin 1877                                                                 |                                                                                     |
| » Squatarolae<br>» Totani<br>» Urogalli<br>» Vanelli<br>» varians<br>» xiphiurus<br>» (Crameria) lunula-<br>tus | Canestrini 1878<br>Canestrini 1878<br>Nörner 1883<br>Canestrini 1878<br>Trouess. 1897 (in litt.)<br>Trouess. et Mègn. 1884 | Canestrini 1879<br>Canestrini 1879<br><br>Trouessart et Mègnin<br>1884              |
| » (Pseudalloptes) a-<br>quilinus                                                                                | Haller 1877<br>Trouess. et Megn. 1884                                                                                      | Trouess. et Mègn. 1884                                                              |
| » (Pseudalloptes) bi-<br>mucronatus                                                                             | Trouess. et Mègn. 1884                                                                                                     |                                                                                     |
| » (Pseudalloptes) bi-<br>subulatus                                                                              | Trouess. et Mègn. 1888                                                                                                     |                                                                                     |
| » (Pseudalloptes) di-<br>dactylus                                                                               | Trouess. et Mègn. 1884                                                                                                     | Berlese                                                                             |
| » (Pseudalloptes)<br>Gruis                                                                                      | Trouess. et Mègn. 1884                                                                                                     |                                                                                     |
| » (Pseudalloptes) mi-<br>crodiscus                                                                              | Trouess. et Mègn. 1884<br>Berlese 20 febr. 1885                                                                            |                                                                                     |
| Pteronyssus brevipes                                                                                            |                                                                                                                            |                                                                                     |
| » fuscus                                                                                                        | Nitzsch 1818                                                                                                               | Trouessart 1885                                                                     |
| » integer<br>» Nuntiae veris                                                                                    | Trouess. et Neum. 1888<br>Berlese 20 febr. 1886                                                                            |                                                                                     |
| » obscurus                                                                                                      | Berlese 20 febr. 1885                                                                                                      |                                                                                     |
| » pallens                                                                                                       | Berlese 20 jan. 1886                                                                                                       |                                                                                     |
| » parinus                                                                                                       | Koch 1884                                                                                                                  | Rob. et Megnin 1877                                                                 |
| » picinus                                                                                                       | Koch 1844                                                                                                                  | Rob. et Megnin 1877                                                                 |
| » Puffini                                                                                                       | Buchholz 1870                                                                                                              | Trouessart 1885                                                                     |
| » quadratus                                                                                                     | Haller 1882                                                                                                                | Berlese 20 febr. 1886                                                               |
| » striatus                                                                                                      | Rob. et. Megn. 1877                                                                                                        |                                                                                     |
| » (Mesalges) Aluconis                                                                                           | Buchholz 1870                                                                                                              | Berlese 1897                                                                        |
| Pterophagus strictus                                                                                            | Rob. et. Megn. 1877                                                                                                        |                                                                                     |

| Etymologia<br>nominis specifici                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Patria specierum                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Super Porzanas collectus<br/> <math>\pi\rho\omega\kappa\tau\acute{o}\varsigma</math> = anus; <math>\gamma\acute{\alpha}\mu\omicron\varsigma</math> = nuptiae<br/>         Super Rallos inquirendus<br/>         Cl. Rehberg species dicata<br/>         Mas appendiculis securiformibus postice ornatur<br/>         Super Squatarolam<br/>         Super Totanos<br/>         Super <i>Terao urogallus</i><br/>         Super Vanellos<br/>         Mas valde variabilis<br/> <math>\xi\grave{\epsilon}\rho\iota\omicron\varsigma</math> = gladiolus; <math>\omicron\upsilon\rho\alpha</math> = cauda</p> | <p>Tota Europa<br/>         Tota Europa, Nova Caledonia<br/> <b>Gallia</b><br/>         Tota Europa<br/>         Tota Europa<br/>         Tota Europa etc.<br/>         Tota Europa etc.<br/> <b>Germania</b><br/>         Tota Europa<br/> <b>Gallia</b><br/> <b>Gallia</b></p> |
| <p>Proter maris abdominis postici fabricam<br/>         Super aquilas inventus</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Tota Europa etc.<br/> <b>Gallia</b>, America, Australia, Nova Guinea</p>                                                                                                                                                                                                      |
| <p>Mas postice mucronibus duobus est praeditus<br/>         Maris abdomen postice spinis duabus auctum<br/>         Propter tarsi postici maris fabricam<br/>         Super Grues</p>                                                                                                                                                                                                                                                                                                                                                                                                                         | <p><b>Gallia</b> Asia<br/> <b>Gallia</b><br/> <b>Gallia</b><br/> <b>Gallia</b></p>                                                                                                                                                                                               |
| <p>Mas disculis copul. minoribus<br/>         Mas pedibus tertii paris brevioribus<br/>         Colore testaceo-fuligineo insignitus<br/>         Postice mas integer est<br/>         Quia super Hirundines occurrunt</p>                                                                                                                                                                                                                                                                                                                                                                                    | <p><b>Gallia</b><br/> <b>Italia</b><br/>         Tota Europa<br/> <b>Gallia</b></p>                                                                                                                                                                                              |
| <p>Valde fuscus est<br/>         Albido-hyalino colore<br/>         Super Parum caeruleum<br/>         Super Picos obvius<br/>         Super Puffinos</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p><b>Italia</b><br/> <b>Italia-Gallia</b>, <b>Germania</b><br/> <b>Italia-Gallia</b><br/>         Tota Europa<br/>         Tota Europa<br/>         Tota Europa etc.</p>                                                                                                        |
| <p>Propter maris abdominis fabricam<br/>         Derma enim sat crasse striatum est<br/>         Super <i>Syrnium Aluco</i> collectus<br/>         Quia mares foeminaeque elongati sunt</p>                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Tota Europa, Senegal.<br/>         Tota Europa<br/> <b>Germania</b>, <b>Gallia</b><br/>         Tota Europa ect.</p>                                                                                                                                                          |

| Speciei nomen                                  | Auctor (vel auctores)<br>qui primitus speciem<br>invenerunt<br>et quo tempore | Auctor (vel auctores)<br>qui in alio genere<br>speciem inseverunt<br>et quo tempore |
|------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rhyzoglyphus echinopus<br>Rivoltasia bifurcata | Foum. et Rob. 1868<br>Rivolta 1876                                            | Claparede 1868<br>G. Canestrini 1896<br>G. Canestrini 1896                          |
| »    dermicola                                 | Trouessart 1880                                                               |                                                                                     |
| »    latior                                    | Canestrini 1894                                                               |                                                                                     |
| Thecarthra Bouveti                             | Trouess et Mègn. 1885                                                         | Berlese 1897                                                                        |
| »    interifolia                               | Trouess. et Mègn, 1884                                                        | Berlese 1897                                                                        |
| »    longitarsa                                | Trouess. et Mègn. 1885                                                        | Berlese 1897                                                                        |
| »    semaphora                                 | Trouess. 1885                                                                 | Berlese 1897                                                                        |
| »    setigera                                  | Trouess. et Mègn. 1885                                                        | Berlese 1897                                                                        |
| »    simplex                                   | Trouess. 1886                                                                 | Berlese 1897                                                                        |
| »    theca                                     | Trouess. et Mègn. 1885                                                        | Berlese 1897                                                                        |
| «    Trouessarti                               | Berlese 1897                                                                  |                                                                                     |
| Trichotarsus Osmiae                            | Dufour 1832                                                                   | Berlese 1897                                                                        |
| «    Xylocopae                                 | Dugès 1834                                                                    | Canestrini 1888                                                                     |
| Tyroglyphus Kramerii                           | Berlese 1881                                                                  |                                                                                     |
| »    longior                                   | Gervais 1881                                                                  |                                                                                     |
| »    * mycophagus                              | Mègnin 1874                                                                   |                                                                                     |
| »    ovatus                                    | Troupeau 1878                                                                 |                                                                                     |
| »    sculus                                    | Foum. et Rob. 1867                                                            |                                                                                     |
| »    Siro                                      | Linnè 1746                                                                    | Gervais 1843-47                                                                     |
| Saproglyphus neglectus                         | Berlese 15 et dec. 1890                                                       |                                                                                     |
| Sarcoptes Canis                                | Gerlach 1856                                                                  |                                                                                     |
| »    Caprae                                    | Fürstemberg 1861                                                              |                                                                                     |
| »    Equi                                      | Gerlach 1857                                                                  |                                                                                     |
| »    Furonis                                   | Railliet 1887                                                                 | Canestrini 1894                                                                     |
| »    Hominis                                   | Hering 1835                                                                   |                                                                                     |
| »    Lupi                                      | Mègnin 1880                                                                   | Canestrini 1894                                                                     |
| »    Ovis                                      | Mègnin 1880                                                                   | Canestrini 1894                                                                     |
| »    praecox                                   | Canestrini 1894                                                               |                                                                                     |
| »    parvulus                                  | Canestrini 1894                                                               |                                                                                     |
| »    Rupicaprae                                | Hering 1835                                                                   |                                                                                     |
| »    scabiei crustosae                         | Fürstemberg 1861                                                              |                                                                                     |



| <p>Etymologia<br/>nominis specifici</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>Patria specierum</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Tarsis apice valde spinosis<br/>Mas in ped. 3<sup>i</sup> paris apophysibus<br/>duabus spiniformibus gaudet<br/>Quia super derma insidens<br/>Propter corporis fabricam<br/>Cl. Bouvet species dicata<br/>Quia mas foliolis integris postice auctus est<br/>Propter pedes longissimos<br/>Mas enim postice foliis latioribus quasi vexilliformibus auctus<br/>Setis longis aucta<br/>Corpore simpliciter fabricato<br/>Quod anticum corpus in abdomine immitti potest<br/>Cl. Trouessart species dicata<br/>Quia super Osmias aliasque apidas inquirendus<br/>Super Xylocopam violaceam perobvius<br/>Cl. Kramer species dicata<br/>Cur species haec hoc gaudet nomine?<br/>Super fungos putrescentes frequens<br/>Propter corporis fabricam<br/>Patria considerata<br/><i>αετρός</i> = callidus, ardens, forsitan quia cibaria destruit, quasi ignis hoc animalculum<br/>Quia saepius inveneram et cum Histogastero carpione confuseram<br/>Super Canem familiarem<br/>» Capram Hircum<br/>» Equum Caballum<br/>» Furones<br/>» Super Hominem sapientem<br/>» Canem Lupum<br/>» Oves<br/>Quia subviviparus<br/>Propter staturam<br/>Super Rupicapram Capellam<br/>Scabiem peculiarem inducens</p> | <p>Tota Europa<br/><br/>Tota Europa<br/>Gallia Italia<br/>Italia<br/>Gallia<br/><br/>Gallia<br/>Gallia<br/><br/>Germania<br/>Gallia<br/>Gallia<br/><br/>Gallia<br/>Gallia<br/><br/>Gallia, Italia<br/><br/>Tota Europa<br/>Italia, Gallia Germania<br/><br/>Tota Europa<br/><br/>Tota Europa<br/>Gallia, Italia<br/>Italia, Gallia, Germania<br/><br/>Tota Europa<br/><br/>Italia<br/>Tota Europa<br/>Tota Europa<br/>Tota Europa<br/>Tota Europa<br/>Tota Europa, America etc.<br/>Tota Europa<br/>Tota Europa<br/>Gallia, Italia<br/>Gallia<br/>Tota Europa<br/>Europa</p> |



| Speciei nomen                                                       | Auctor (vel auctores)<br>qui primitus speciem<br>invenerunt<br>et quo tempore         | Auctor (vel auctores)<br>qui in alio genere<br>speciem inseverunt<br>et quo tempore |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| » Suis<br>» Vulpis<br>Spheroastra thylacodes<br>Syringobia chelopus | Gerlach 1857<br>Furstemberg 1861<br>Trouess. 1897 (in litt.)<br>Trouess. et Neum 1888 |                                                                                     |
| » tricalcarata                                                      | Trouess. et Neum 1883                                                                 |                                                                                     |
| Xolalges scaurus                                                    | Trouess. 1885                                                                         |                                                                                     |
| » claudicans                                                        | Rob. et Mègn. 1878                                                                    | Canestrini 1879                                                                     |

| Etymologia<br>nominis specifici                                                                                                                                                                                                                                                                                                                                                                                                    | Patria specierum                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <p>Super <i>Sus scropha</i><br/> &gt; Vulpes<br/> θυλακοειδής = sacculo similis<br/> Quod mas pedibus posticis<br/> crassioribus inter sese che-<br/> lam sistentibus auctus<br/> Quod mas in pedibus quarti<br/> paris calcaribus tribus gau-<br/> det<br/> Sive talis crassis, propter ma-<br/> ris tarsorum posticorum fa-<br/> bricam<br/> Mas enim pedibus posticis cur-<br/> tis, amulacro destitutis est<br/> praeditus</p> | <p>Tota Europa<br/> Tota Europa<br/> <br/> Gallia<br/> <br/> Gallia<br/> <br/> Gallia<br/> <br/> Tota Europa</p> |



# INDEX GENERUM ET SPECIERUM

SECUNDUM

ORDINEM ALPHABETICUM DISPOSITURUM







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| » pachicnemius                            | XXIV                                                            | 10                                                           | 144                                          | IV, 22                                                                            |
| » passerinus                              | XV                                                              | 1                                                            | 146                                          | II, 3; IV, 20                                                                     |
| » tridentulatus                           | XXIV                                                            | 3                                                            | 143                                          | IV, 21                                                                            |

| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Analges unidentatus</b>                | XXVII                                                           | 5                                                            | 145                                          | IV, 22                                                                            |
| <b>Analloptes</b>                         | LXXX                                                            | 11                                                           |                                              |                                                                                   |
| <b>Analloptes Megninii</b>                | XXXVII                                                          | 6                                                            | 153                                          |                                                                                   |
| » Meg. var.<br>Falcinelli                 | XXXVII                                                          | 7                                                            | 154                                          |                                                                                   |
| » pallens                                 | LXXXIII                                                         | 6                                                            | 155                                          |                                                                                   |
| » Stellaris                               | XXXVIII                                                         | 8                                                            | 152                                          |                                                                                   |
| <b>Bdellorhynchus</b>                     | LXXX                                                            | 12                                                           |                                              |                                                                                   |
| <b>Bdellorhynchus poly-<br/>morphus</b>   | XXVIII                                                          | 1                                                            | 109                                          | IV, 35                                                                            |
| <b>Canestrinia</b>                        | LXXXI                                                           | 8                                                            |                                              |                                                                                   |
| <b>Canestrinia Blaptis</b>                | XXXIX                                                           | 1                                                            | 200                                          | IV, 43                                                                            |
| » Cerambicis                              | XXIX                                                            | 2                                                            | 198                                          | IV, 43                                                                            |
| » doricola                                | XXXI                                                            | 10                                                           | 201                                          |                                                                                   |
| »<br>var. Pentodontis                     | XCI                                                             | 11                                                           |                                              |                                                                                   |
| » Giardi                                  | LXXXIII                                                         | 7                                                            | 199                                          |                                                                                   |
| » Procrusti                               | LXV                                                             | 9                                                            | 202                                          |                                                                                   |
| <b>Caparinia</b>                          | LXXXI                                                           | 9                                                            |                                              |                                                                                   |
| <b>Caparinia tripilis</b>                 | XCII                                                            | 6                                                            |                                              |                                                                                   |
| » vulpis                                  | XCII                                                            | 5                                                            |                                              |                                                                                   |
| <b>Carpoglyphus</b>                       | XCII                                                            | 18                                                           |                                              |                                                                                   |
| <b>Carpoglyphus passula-<br/>rum</b>      | XIV                                                             | 10                                                           | 219                                          |                                                                                   |
| <b>Cheirocoptes</b>                       | XCI                                                             | 19                                                           |                                              |                                                                                   |
| <b>Cheirocoptes chiropte-<br/>ralis</b>   | XCI                                                             | 7                                                            | 22                                           |                                                                                   |

| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Chorioptes</b>                         | LXXXI                                                           | 10                                                           |                                              |                                                                                   |
| Chorioptes Bovis                          | LXXIX                                                           | 4                                                            |                                              |                                                                                   |
| » Equi                                    | LXXIX                                                           | 4                                                            | 31                                           |                                                                                   |
| <b>Chorthoglyphus</b>                     | LXXXVIII                                                        | 9                                                            |                                              | I, II                                                                             |
| Chorthoglyphus arcua-<br>tus              | XIV                                                             | 4                                                            | 214                                          |                                                                                   |
| <b>Cnemidocoptes</b>                      | LXXXI                                                           | 11                                                           |                                              |                                                                                   |
| Cnemidocoptes Colum-<br>bae               | LXXXIX                                                          | 5                                                            | 25                                           |                                                                                   |
| » Gallinae                                | LXXXIX                                                          | 4                                                            | 24                                           |                                                                                   |
| » glaber-<br>rimus                        | XCI                                                             | 12                                                           |                                              |                                                                                   |
| » mutans                                  | LXXXIV                                                          | 6                                                            | 23                                           |                                                                                   |
| » philo-<br>melae                         | XCII                                                            | 15                                                           |                                              |                                                                                   |
| <b>Coleopterophagus</b>                   | LXXXI                                                           | 12                                                           |                                              |                                                                                   |
| Coleopterophagus ca-<br>rubicola          | I                                                               | 10                                                           | 204                                          |                                                                                   |
| » Megninii                                | I                                                               | 9                                                            | 203                                          |                                                                                   |
| <b>Cytodites</b>                          | LXXXII                                                          | 8                                                            |                                              |                                                                                   |
| Cytodites nudus                           | LXXXIV                                                          | 7                                                            | 16                                           |                                                                                   |
| <b>Dermation</b>                          | LXXXVIII                                                        | 10                                                           |                                              |                                                                                   |
| Dermation bihamatum                       | XC                                                              | 4                                                            | 38                                           |                                                                                   |
| <b>Dermoglyphus</b>                       | LXXXVIII                                                        | 11                                                           |                                              |                                                                                   |
| Dermoglyphus diplec-<br>tron              | LXXX                                                            | 7                                                            | 44                                           |                                                                                   |

| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Dermoglyphus elongatus</b>             | XC                                                              | 3                                                            | 42                                           |                                                                                   |
| » minor                                   | LXXXIX                                                          | 7                                                            | 43                                           |                                                                                   |
| » varians                                 | XC                                                              | 9                                                            |                                              |                                                                                   |
| <b>Epidermoptes</b>                       | LXXXII                                                          | 9                                                            |                                              |                                                                                   |
| <b>Epidermoptes bilobatus</b>             | LXXIX                                                           | 3                                                            | 37                                           |                                                                                   |
| <b>Falciger</b>                           | LXXXII                                                          | 10                                                           |                                              |                                                                                   |
| <b>Falciger rostratus</b>                 | XXVII                                                           | 6                                                            | 108                                          | IV, 35                                                                            |
| <b>Freyana</b>                            | LXXXII                                                          | 11                                                           |                                              |                                                                                   |
| <b>Freyana anatina</b>                    | XXIV                                                            | 1                                                            | 57                                           | IV, 13                                                                            |
| » » varietates                            | XCI                                                             | 13                                                           |                                              |                                                                                   |
| » anserina                                | LXXXV                                                           | 1                                                            | 56                                           |                                                                                   |
| » pelargica                               | LXXXII                                                          | 3                                                            | 55                                           |                                                                                   |
| » (Halleria) hirsutirostris               | LXXXV                                                           | 2                                                            | 58                                           |                                                                                   |
| » (Michaelichus) Caputmedusae             | LXXXII                                                          | 6                                                            | 60                                           |                                                                                   |
| » (Michaelichus) heteropus                | LXXXII                                                          | 7                                                            | 59                                           |                                                                                   |
| » (Microspalax) Chanay                    | LXXXII                                                          | 4                                                            | 61                                           |                                                                                   |
| » (Microspalax) manicata                  | LXXXII                                                          | 5                                                            | 62                                           |                                                                                   |
| » (Microspalax) manicata var. brevipes    | LXXXV                                                           | 3                                                            | 63                                           |                                                                                   |

| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Glycyphagus</b>                        | LXXXIX                                                          | 1                                                            | 221                                          |                                                                                   |
| Glycyphagus Cane-<br>strinii              | LVIII                                                           | 3                                                            | 229                                          | I, 10                                                                             |
| » domesti-<br>cus                         | XIV                                                             | 3                                                            | 223                                          |                                                                                   |
| » interme-<br>dius                        | XCI                                                             | 10                                                           |                                              |                                                                                   |
| » ornatus                                 | XXIX                                                            | 3                                                            | 222                                          | IV, 44                                                                            |
| » palmifer                                | LI                                                              | 2                                                            | 226                                          |                                                                                   |
| » peregri-<br>nans                        | LV                                                              | 1                                                            | 227                                          |                                                                                   |
| » plumifer                                | XIV                                                             | 1                                                            | 228                                          | I, 9                                                                              |
| » pteropho-<br>rus                        | LVIII                                                           | 6                                                            | 225                                          |                                                                                   |
| » spinipes                                | XIV                                                             | 2                                                            | 224                                          | I, 9                                                                              |
| <b>Hemisarcoptes</b>                      | LXXXIII                                                         | 8                                                            |                                              |                                                                                   |
| Hemisarcoptes cocci-<br>sugus             | XCI                                                             | 2                                                            | 213                                          |                                                                                   |
| <b>Hericia</b>                            | LXXXVI                                                          | 12                                                           |                                              |                                                                                   |
| Hericia Robinii                           | LXXX                                                            | 5                                                            | 220                                          |                                                                                   |
| <b>Heteropsorus</b>                       | LXXXIII                                                         | 9                                                            |                                              |                                                                                   |
| Heteropsorus pterop-<br>topus             | LXXVIII                                                         | 4                                                            | 33                                           |                                                                                   |
| <b>Histiogaster</b>                       | LXXXIII                                                         | 10                                                           |                                              |                                                                                   |
| Histiogaster carpio                       | XIV                                                             | 5                                                            | 230                                          |                                                                                   |
| <b>Histiostoma</b>                        | LXXIX                                                           | 6                                                            | 207                                          |                                                                                   |
| Histiostoma fimetarium                    | IX                                                              | 7                                                            | 210                                          | IV, 45                                                                            |
| » flagellifer                             | XCI                                                             | 1                                                            | 209                                          |                                                                                   |



| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrati | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| Histiostoma muscarum                      | XXXIX                                                           | 9                                                            | 211                                          | IV, 45                                                                            |
| » phyllothri-<br>chum                     | IX                                                              | 8                                                            | 208                                          |                                                                                   |
| » rostroterra-<br>tum                     | XXIX                                                            | 4                                                            | 212                                          |                                                                                   |
| <b>Labidocarpus</b>                       | LXXXVIII                                                        | 12                                                           |                                              | IV, 44                                                                            |
| Labidocarpus mega-<br>lonyx               | XCI                                                             | 5                                                            | 197                                          |                                                                                   |
| » Rollinati                               | XCI                                                             | 6                                                            | 196                                          |                                                                                   |
| <b>Laminosioptes</b>                      | LXXXII                                                          | 11                                                           |                                              | IV, 44                                                                            |
| Laminosioptes cysti-<br>cola              | LXXXIII                                                         | 5                                                            | 17                                           |                                                                                   |
| <b>Linocoptes</b>                         | XXXIX                                                           | 8                                                            | 205                                          |                                                                                   |
| Linocoptes Coccinellae                    | XXXIX                                                           | 7                                                            | 206                                          |                                                                                   |
| <b>Listrophorus</b>                       | LXXX                                                            | 1                                                            | 187                                          |                                                                                   |
| Listrophorus gibbus                       | XLV                                                             | 10                                                           | 188                                          |                                                                                   |
| » Leukarti                                | LXXX                                                            | 3                                                            | 189                                          |                                                                                   |
| » Mustelae                                | LXXX                                                            | 4                                                            | 190                                          |                                                                                   |
| » Pagen-<br>steckeri                      | LXXX                                                            | 2                                                            | 191                                          |                                                                                   |
| <b>Mealia</b>                             | LXXXIX                                                          | 10                                                           |                                              |                                                                                   |
| Mealia longior                            | XCH                                                             | 4                                                            | 216                                          |                                                                                   |
| » pteronyssina                            | XCH                                                             | 3                                                            | 215                                          |                                                                                   |
| <b>Megnlnia</b>                           | LXXXIV                                                          | 8                                                            |                                              |                                                                                   |
| Megnlnia aestivalis                       | XXV                                                             | 10                                                           | 134                                          | IV. 30, 33                                                                        |
| » aestivalis var.<br>subintegra           | XXVI                                                            | 1                                                            | 135                                          |                                                                                   |

| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Megninia appendiculata</b>             | XXXVII                                                          | 4                                                            | 139                                          |                                                                                   |
| » centropodos                             | LXXXVI                                                          | 5                                                            | 126                                          |                                                                                   |
| » var. strictior                          | LXXXVI                                                          | 6                                                            | 129                                          |                                                                                   |
| » centropodos<br>var. forcipata           | LXXXVI                                                          | 7                                                            | 128                                          |                                                                                   |
| » centropodos<br>var. gracilipes          | LXXXVI                                                          | 8                                                            | 127                                          |                                                                                   |
| » Columbae                                | XXVII                                                           | 4                                                            | 124                                          | IV, 32                                                                            |
| » cubitalis                               | IV                                                              | 5                                                            | 125                                          | IV, 51, 32                                                                        |
| » Gallinulae                              | XXVI                                                            | 6                                                            | 122                                          | IV, 31, 32                                                                        |
| » var. maior                              | XXVI                                                            | 8                                                            | 123                                          |                                                                                   |
| » grossa                                  | LXXXVI                                                          | 4                                                            | 131                                          |                                                                                   |
| » Ibidis                                  | XXXVII                                                          | 5                                                            | 132                                          |                                                                                   |
| » » var. ser-<br>rulata                   | LXXXVI                                                          | 3                                                            | 133                                          |                                                                                   |
| » oscinum                                 | LXV                                                             | 3                                                            | 136                                          |                                                                                   |
| » Picimajoris                             | XXV                                                             | 7                                                            | 137                                          | IV, 29, 33                                                                        |
| » Strigisoti                              | XXV                                                             | 9                                                            | 138                                          | IV, 34                                                                            |
| » velata                                  | XXVI                                                            | 7                                                            | 130                                          | IV, 31                                                                            |
| <b>Microlichus</b>                        | LXXXIV                                                          | 9                                                            |                                              |                                                                                   |
| <b>Microlichus Avus</b>                   | LXXXIV                                                          | 5                                                            | 32                                           |                                                                                   |
| » Perdicis                                | XC                                                              | 10                                                           |                                              |                                                                                   |
| <b>Moneziella</b>                         | LXXXIX                                                          | 9                                                            |                                              |                                                                                   |
| <b>Moneziella aleurophaga</b>             | XCI                                                             | 9                                                            |                                              |                                                                                   |
| » entomophaga                             | XC                                                              | 1                                                            | 231                                          |                                                                                   |
| » Mali                                    | LVII                                                            | 7                                                            | 232                                          |                                                                                   |

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|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Myocoptes</b>                          | LXXXIV                                                          | 10                                                           |                                              |                                                                                   |
| Myocoptes Cricaeti                        | XCI                                                             | 3                                                            | 195                                          |                                                                                   |
| › glirinus                                | XLVIII                                                          | 9                                                            | 194                                          |                                                                                   |
| Myocoptes musculus                        | XCI                                                             | 2                                                            | 193                                          |                                                                                   |
| › tenax                                   | XCI                                                             | 4                                                            | 192                                          |                                                                                   |
| <b>Notoedrus</b>                          | LXXXIV                                                          | 11                                                           |                                              |                                                                                   |
| Notoedrus Calii                           | LXXIX                                                           | 2                                                            | 18                                           |                                                                                   |
| › Cuniculi                                | XCII                                                            | 14                                                           |                                              |                                                                                   |
| › Muris                                   | XCI                                                             | 8                                                            | 19                                           |                                                                                   |
| <b>Otodectes</b>                          | LXXXIV                                                          | 12                                                           |                                              |                                                                                   |
| Otodectes Cynotis                         | XCI                                                             | 1                                                            | 26                                           |                                                                                   |
| <b>Pachyllichus</b>                       | LXXXII                                                          | 12                                                           |                                              |                                                                                   |
| Pachyllichus crassus                      | XC                                                              | 5                                                            | 34                                           |                                                                                   |
| <b>Proctophyllodes</b>                    | LXXXV                                                           | 9                                                            |                                              |                                                                                   |
| Proctophyllodes Ampelidis                 | XXVII                                                           | 7                                                            | 183                                          |                                                                                   |
| › arcuaticaulis                           | XCII                                                            | 19                                                           | 185                                          |                                                                                   |
| › glandarinus                             | LXV                                                             | 7                                                            | 186                                          |                                                                                   |
| › stylifer                                | XXV                                                             | 8                                                            | 184                                          |                                                                                   |
| <b>Protalges</b>                          | LXXXIII                                                         | 12                                                           |                                              |                                                                                   |
| Protalges accipitrinus                    | XXVII                                                           | 2                                                            | 151                                          |                                                                                   |
| › attenuatus                              | XXV                                                             | 3                                                            | 150                                          |                                                                                   |
| <b>Psoroptes</b>                          | LXXXIX                                                          | 2                                                            | 27                                           |                                                                                   |
| Psoroptes bovis                           | XC                                                              | 6                                                            | 28                                           |                                                                                   |
| › Cuniculi                                | XC                                                              | 8                                                            | 30                                           |                                                                                   |

| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| Psoroptes Equi                            | XC                                                              | 12                                                           | —                                            |                                                                                   |
| » Ovis                                    | XC                                                              | 7                                                            | 29                                           |                                                                                   |
| <b>Pterocolus</b>                         | LXXXVI                                                          | 9                                                            | —                                            |                                                                                   |
| Pterocolus Actitidis                      | LXXVII                                                          | 1                                                            | 160                                          |                                                                                   |
| » (Allanalges)<br>analgoïdes              | LXXXVIII                                                        | 6                                                            | 157                                          |                                                                                   |
| » appendicula-<br>tus                     | XXIV                                                            | 7                                                            | 164                                          |                                                                                   |
| » » var.<br>minutipes                     | XXVI                                                            | 4                                                            | 165                                          |                                                                                   |
| » bifurcatus                              | XLV                                                             | 8                                                            | 166                                          |                                                                                   |
| » corvinus                                | XXIV                                                            | 6                                                            | 162                                          |                                                                                   |
| » » var.<br>Rosterii                      | XXVI                                                            | 2                                                            | 163                                          |                                                                                   |
| » Edwardsii                               | XXV                                                             | 4                                                            | 161                                          | IV, 25                                                                            |
| » forficiger                              | LXXXVIII                                                        | 5                                                            | 167                                          |                                                                                   |
| » (Allanalges)<br>gracilipes              | LXXXII                                                          | 2                                                            | 158                                          |                                                                                   |
| » Ortygome-<br>trae                       | XXVII                                                           | 1                                                            | 159                                          |                                                                                   |
| <b>Pterodectes</b>                        | LXXXVI                                                          | 10                                                           | —                                            |                                                                                   |
| Pterodectes bilobatus                     | XXVII                                                           | 10                                                           | 180                                          | IV, 27                                                                            |
| » cylindricus                             | XXVII                                                           | 9                                                            | 179                                          | IV, 26                                                                            |
| » rutilus                                 | XXV                                                             | 5                                                            | 178                                          | IV, 26                                                                            |
| » Trouessarti                             | LXXXVIII                                                        | 8                                                            | 181                                          |                                                                                   |
| <b>Pterolichus</b>                        | LXXXVI                                                          | 11                                                           | —                                            |                                                                                   |
| Pterolichus Ardeae                        | LXXVI                                                           | 1                                                            | 68                                           |                                                                                   |
| « Buchholzi                               | LXXVI                                                           | 9                                                            | 95                                           |                                                                                   |

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|-------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| Pterolichus Buchholzi<br>var. fasciger    | LXXXVI                                                          | 10                                                           | 96                                           |                                                                                   |
| » » va-<br>rietates                       | LXXXVII                                                         | 4                                                            | 97                                           |                                                                                   |
| » Charadrii                               | XXXII                                                           | 6                                                            | 67                                           |                                                                                   |
| » Ciconiae                                | XLIX                                                            | 9                                                            | 78                                           |                                                                                   |
| » Colymbi                                 | LXXVI                                                           | 8                                                            | 92                                           |                                                                                   |
| » » var.<br>maior                         | LXXVI                                                           | 8                                                            | 93                                           |                                                                                   |
| » Cuculi                                  | XXXVII                                                          | 1                                                            | 80                                           |                                                                                   |
| » cultrifer                               | L                                                               | 6                                                            | 100                                          |                                                                                   |
| » delibatus                               | XXVII                                                           | 8                                                            | 77                                           |                                                                                   |
| » eventratus                              | XCI                                                             | 16                                                           | —                                            |                                                                                   |
| » Fulicae                                 | LXXXVII                                                         | 1                                                            | 87                                           |                                                                                   |
| » intermedius                             | LXXXV                                                           | 7                                                            | 76                                           |                                                                                   |
| » Limosae                                 | LXXXVI                                                          | 2                                                            | 84                                           |                                                                                   |
| » » va-<br>rietates                       | XCII                                                            | 16                                                           | —                                            |                                                                                   |
| » marinus                                 | LXXXIV                                                          | 2                                                            | 74                                           |                                                                                   |
| » Martini                                 | LXXXV                                                           | 8                                                            | 70                                           |                                                                                   |
| » Nisi                                    | LXXVI                                                           | 5                                                            | 75                                           |                                                                                   |
| » Ninnii                                  | LXXVI                                                           | 6                                                            | 82                                           |                                                                                   |
| » Numenii                                 | LXXVI                                                           | 7                                                            | 73                                           |                                                                                   |
| » obtusus                                 | L                                                               | 7                                                            | 69                                           |                                                                                   |
| » Otldis                                  | LXXXV                                                           | 6                                                            | 79                                           |                                                                                   |
| » pallidus                                | LXXXIV                                                          | 1                                                            | 83                                           |                                                                                   |
| » parallellus                             | XCI                                                             | 15                                                           | —                                            |                                                                                   |
| » Phoenicopteri                           | LXXXVII                                                         | 5                                                            | 91                                           |                                                                                   |
| » Porzanae                                | LXXVI                                                           | 4                                                            | 88                                           |                                                                                   |



| Nomen<br>generis vel speciei<br>descripti   | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
|---------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| Pterolichus proctoga-<br>mus                | LXV                                                             | 5                                                            | 90                                           |                                                                                   |
| » Rallorum                                  | LXXXVII                                                         | 2                                                            | 89                                           |                                                                                   |
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| Nomen<br>generis vel speciei<br>descripti                           | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrati. | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
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| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
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| Nomen<br>generis vel speciei<br>descripti | Fasciculus<br>in quo species<br>vel genus<br>sunt<br>illustrata | Numerus pagi-<br>nae secundum<br>primum editionis<br>ordinem | Numerus tabulae<br>secundum<br>novum ordinem | Numerus paginarum<br>in quibus de genere<br>vel de specie in notis<br>locutum est |
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 211    »    *muscarum* (sub nom.  
       *Hypopus muscarum*)  
 212    »    *rostroserratum* (sub.  
       nom. *Hypopus julo-*  
       *rum*)  
 — *Haemisarcoptes*  
 213 *Haemisarcoptes coccisugus*  
 — *Chortoglyphus*  
 214 *Chortoglyphus arcuatus* (sub.  
       nom. *Ch. nudus*)  
 — *Mealia*  
 215 *Mealia pteronyssina*  
 216    »    *longior*  
 — *Saproglyphus*  
 217 *Saproglyphus neglectus*  
 — *Trichotarsus*  
 218 *Trichotarsus Xylocopae* (sub.  
       nomine *Trichodactylus Xy-*  
       *locopae*)  
 — *Carpoglyphus*  
 219 *Carpoglyphus passularum*  
       (sub. nomine *Trichodactylus*  
       *anonymus*)  
 — *Hericia*  
 220 *Hericia Robinii*  
 221 *Glycyphagus*  
 222 *Glycyphagus ornatus*  
 223    »    *domesticus*  
 224    »    *spinipes*  
 225    »    *pterophorus*  
 226    »    *palmifer*  
 227    »    *peregrinans*

## Tabula

- *Glycyphagus intermedius*  
 228 » *plumifer*  
 229 » *Canestrinii*  
 — *Histiogaster*  
 230 *Histiogaster carpio*  
 - *Moneziella*  
 231 *Moneziella entomophaga*  
 232 » *Mali* (sub nomine *Histiogaster corticalis*)  
 — » *aleurophaga*  
 233 *Tyroglyphus*  
 234 *Tyroglyphus Kramerii*

## Tabula

- 235 *Tyroglyphus Siro*  
 236 » *longior* (sub nomine *T. infestans*)  
 237 » *mycophagus*  
 238 » *ovatus*  
 — *Aleurobius*  
 239 *Aleurobius Farinae* (sub nomine *Tyroglyphus Farinae*)  
 240 *Rhyzoglyphus*  
 241 *Rhyzoglyphus echinopus* (partim sub nomine *Tyroglyphus Megninii*).







## EMENDANDA

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Species nonnullae quae in fasciculis sunt descriptae, nomine sunt emendandae quia vel nomine errato signatae, vel in generibus novis introducendae. Genera nuper insituta sunt:

**Trichotarsus** Canestrini (pro *Trichodactylus*, nomen iam in Crustaceis praeoccupatum).

**Moneziella** nov. gen. pro *Tyroglyphus Mali*, *T. entomophagus*, *Histiogaster aleurophagus* constitutum.

**Aleuroblus** Canestrini (pro *Tyroglyphus Farinae* genus compositum).

Species autem, nomine emendandae, alphabetice dispositae sunt:

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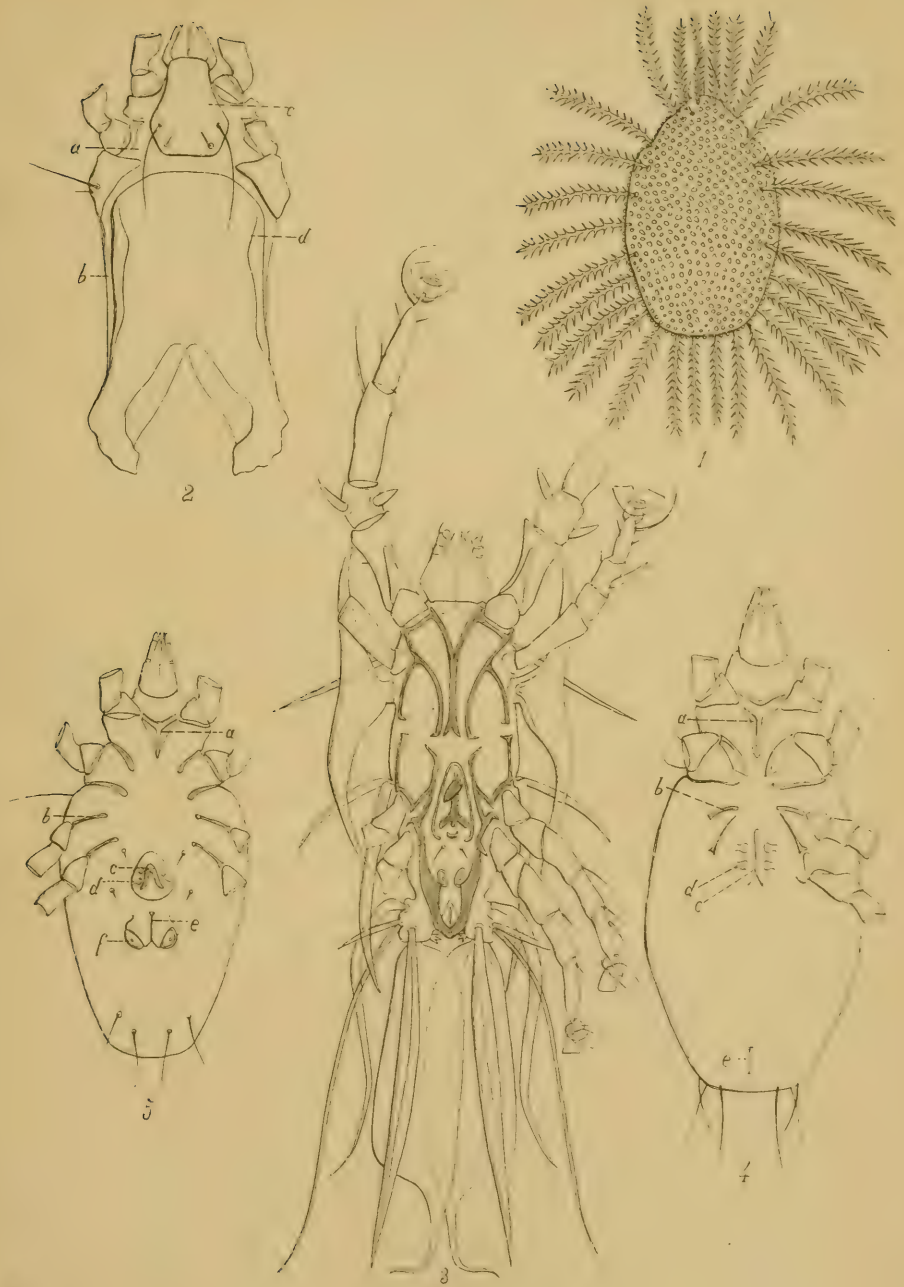
N. B. In descriptione et figuris *Glycyphagi plumiferi*, (Fasc. XIV, N. 1) species duas, secundum Cl. Canestrinum inveni, quae sunt: *Gl. plumifer*, *Gl. intermedius*; harum specierum separatas mittam descriptiones quae cum tabula unica simul disponentur.

| Nomen emendandum                     | Numerus<br>Fasciculi | Numerus<br>tabulae | Nomen emendatum                    |
|--------------------------------------|----------------------|--------------------|------------------------------------|
| <i>Alloptes hastatus</i>             | 16                   | 8                  | <b>Alloptes haemiphyllus</b>       |
| » <i>palmatius</i>                   | 16                   | 7                  | <b>Alloptes microphyllus</b>       |
| <i>Chortoglyphus nudus</i>           | 14                   | 4                  | <b>Chortoglyphus arcuatus</b>      |
| <i>Histiogaster corticalis</i>       | 57                   | 7                  | <b>Moneziella Mali</b>             |
| <i>Hypopus fimetarius</i>            | 9                    | 7                  | <b>Histiostoma fimetarium</b>      |
| » <i>julorum</i>                     | 29                   | 4                  | <b>Histiostoma rostro serratum</b> |
| » <i>muscarum</i>                    | 39                   | 9                  | <b>Histiostoma muscarum</b>        |
| » <i>phyllothrichus</i>              | 9                    | 8                  | <b>Histiostoma phyllothrichum</b>  |
| <i>Myocoptes musculus</i> (1)        | 48                   | 9                  | <b>Myocoptes glirinus</b>          |
| <i>Trichodactylus anony-<br/>mus</i> | 14                   | 10                 | <b>Carpoglyphus passularum</b>     |
| <i>Tyroglyphus farinae</i>           | 14                   | 9                  | <b>Aleurobius farinae</b>          |
| » <i>infestans</i>                   | 14                   | 6                  | <b>Tyroglyphus longior</b>         |
| » <i>Megnini:</i><br>(partim)        | 14                   | 7                  | <b>Rhyzoglyphus echinopus</b>      |

(1) Diagnosis ad numerum indicatum, sub nomine *Myocoptes musculus* deiciatur, quod diagnosis nomine emendato nunc mitto et erroneae substituitur; emendetur ergo tantum nomen in tabula.



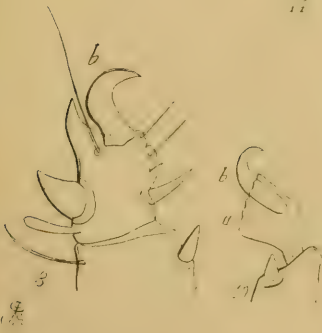
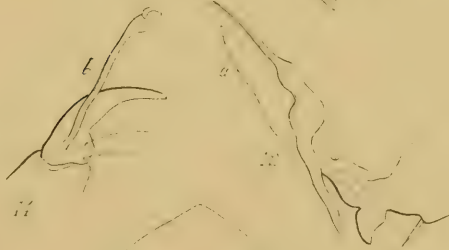
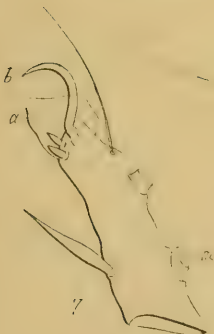
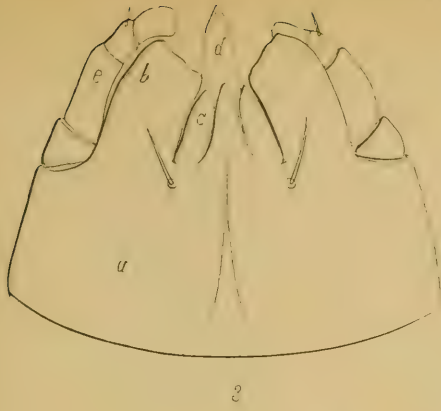




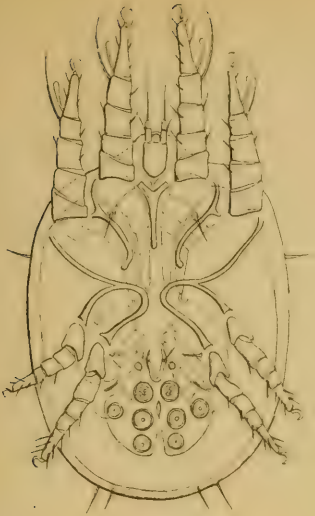




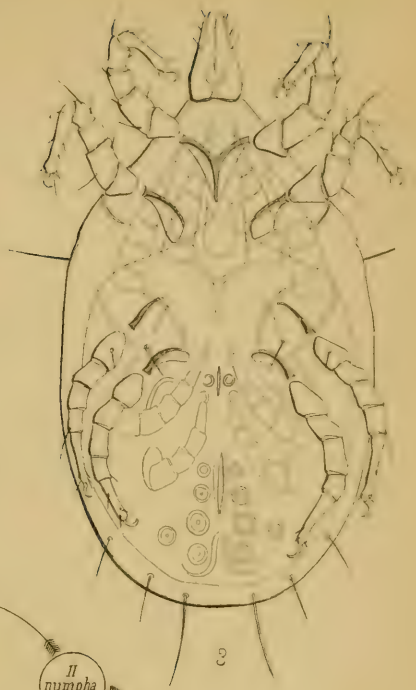
# TAB II



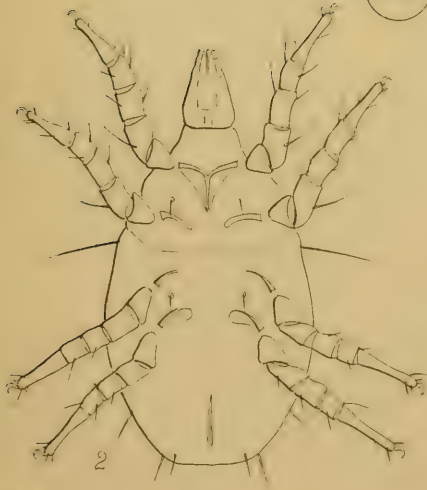
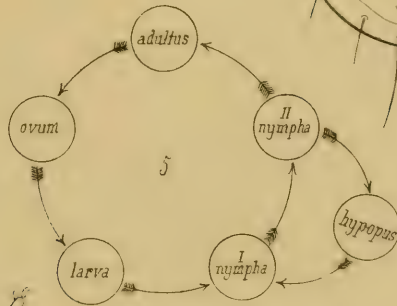




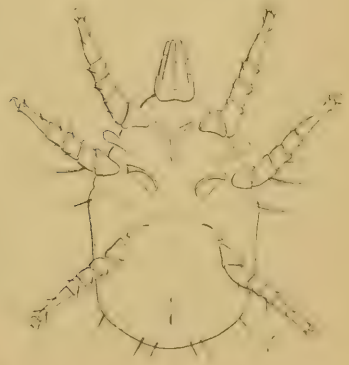
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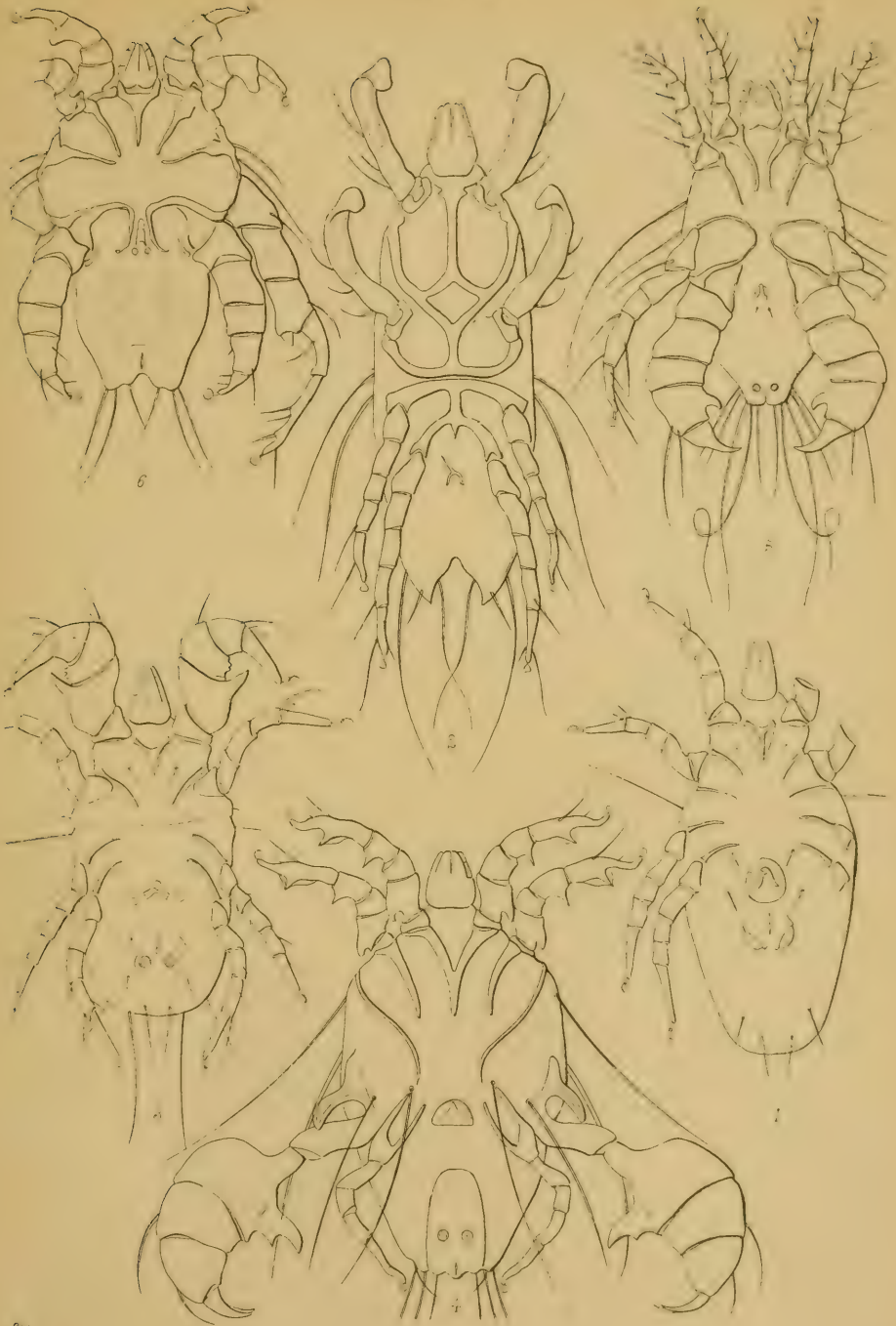




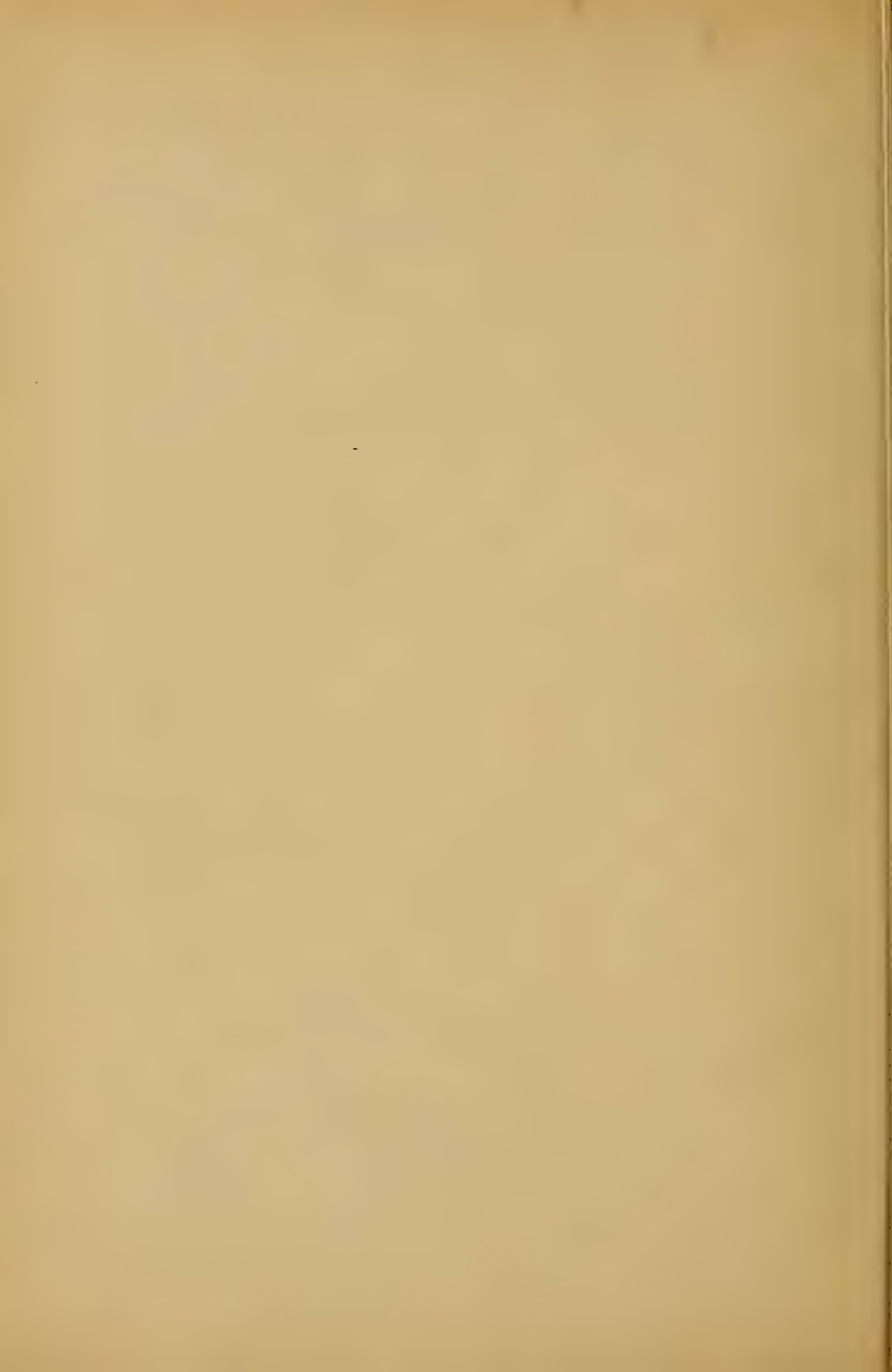


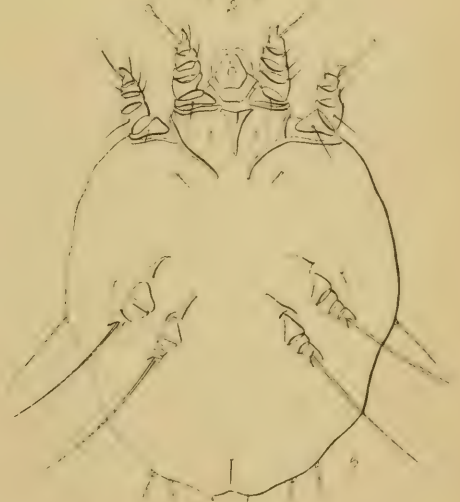
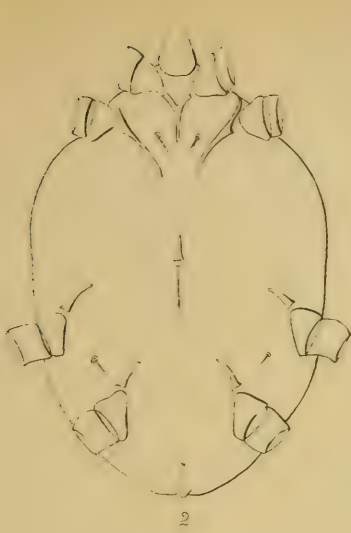






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*H. v. d. W.*

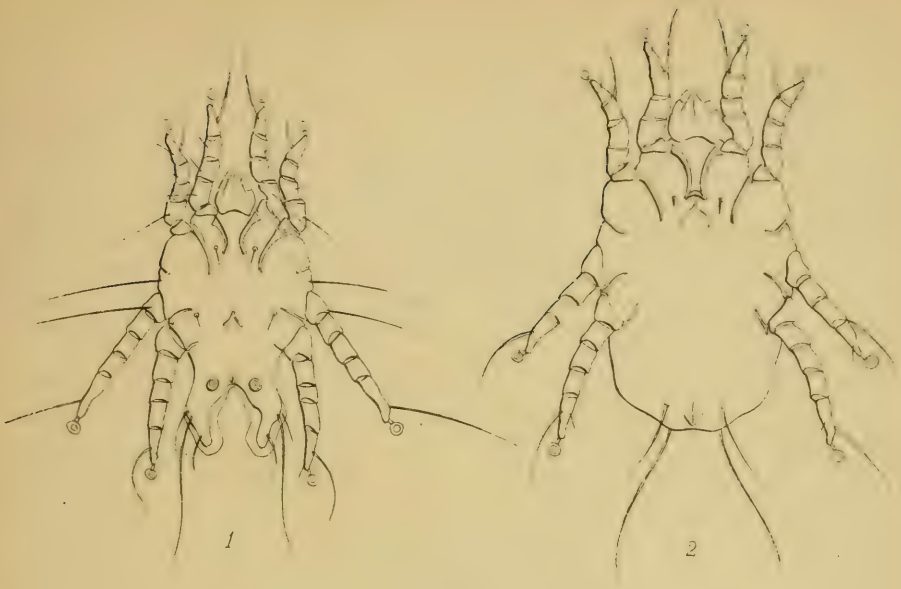






Barley

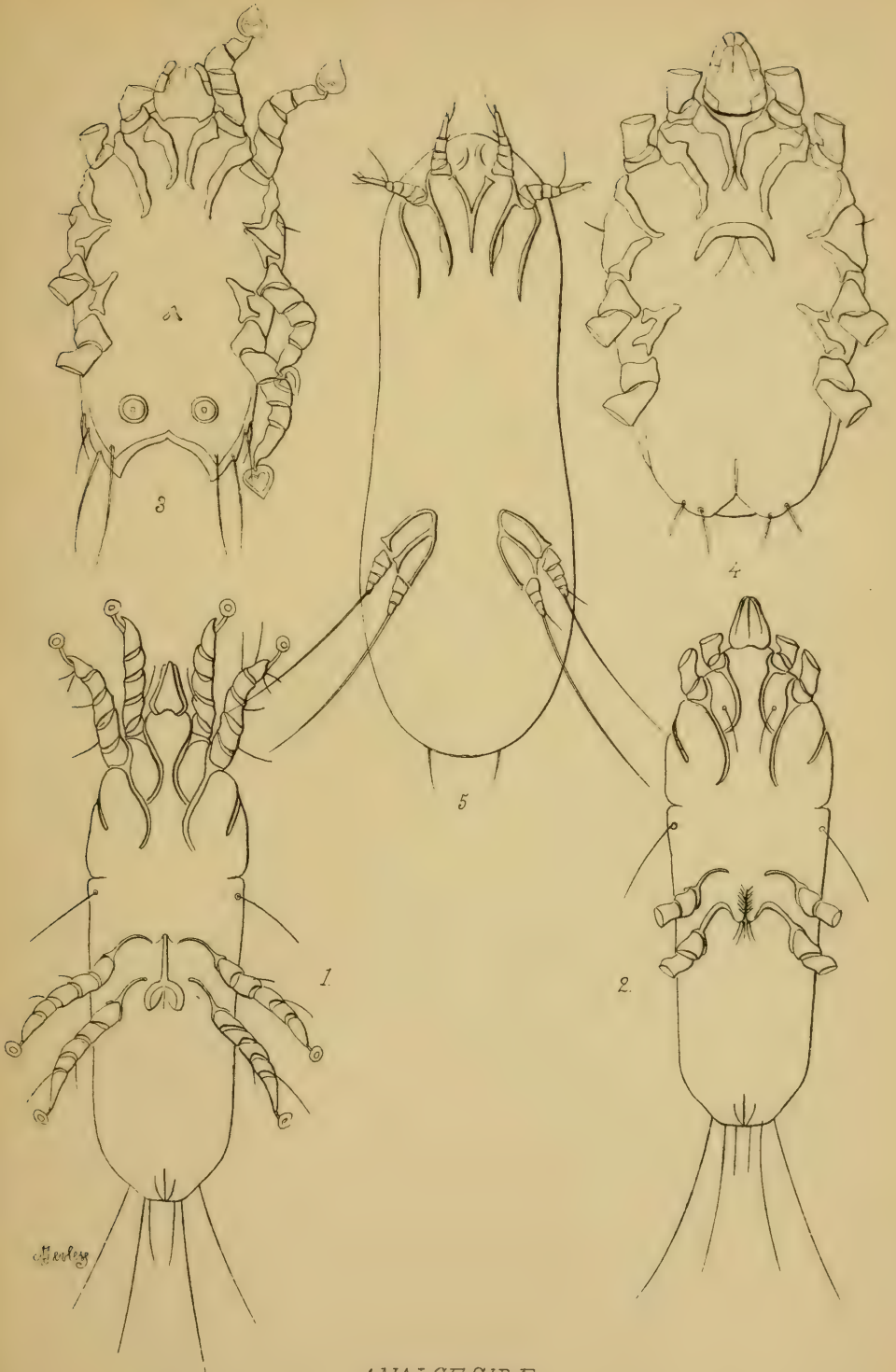




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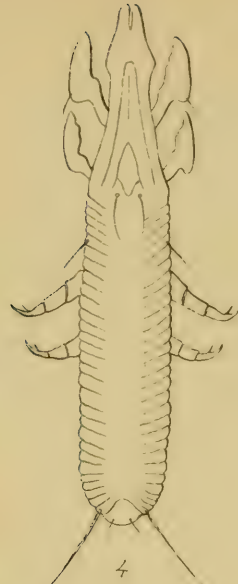
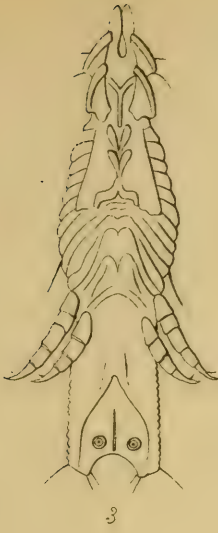








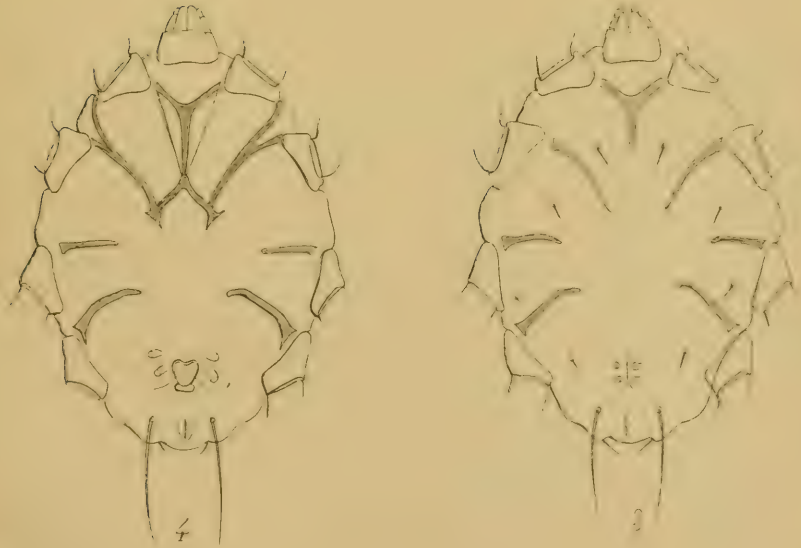
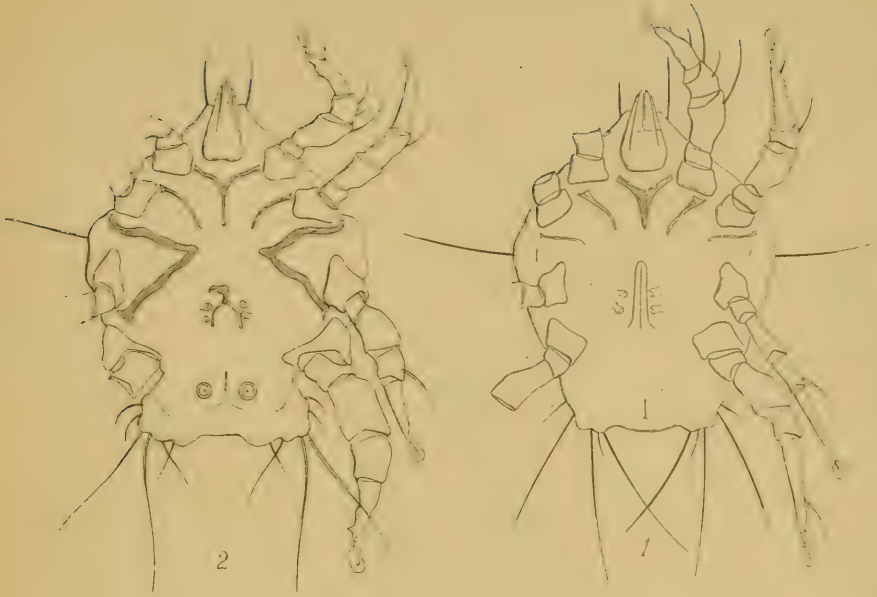




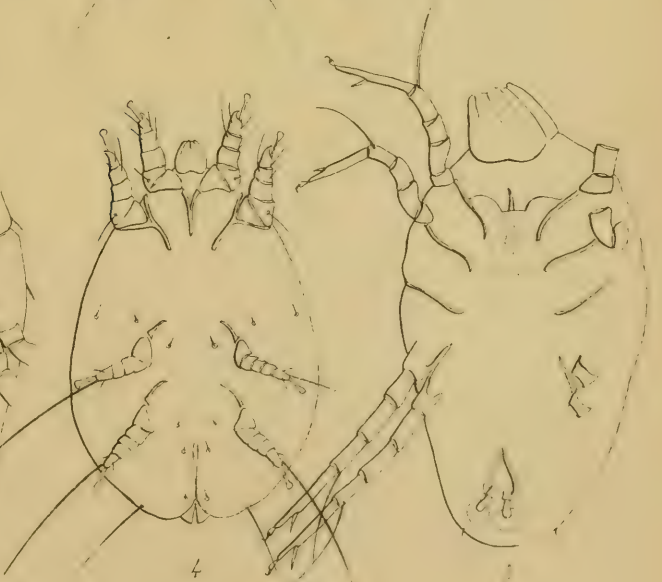
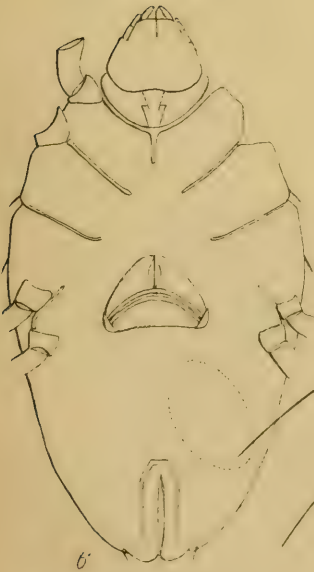
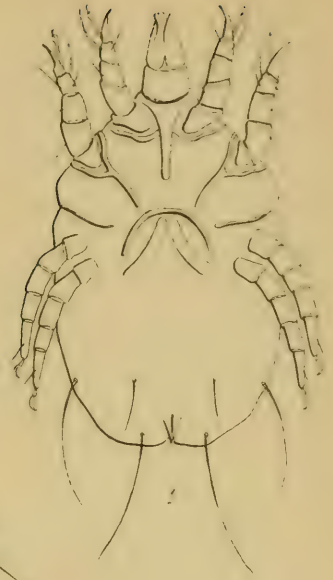
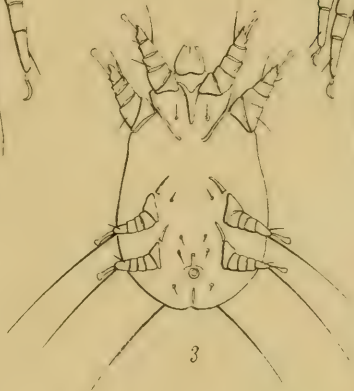
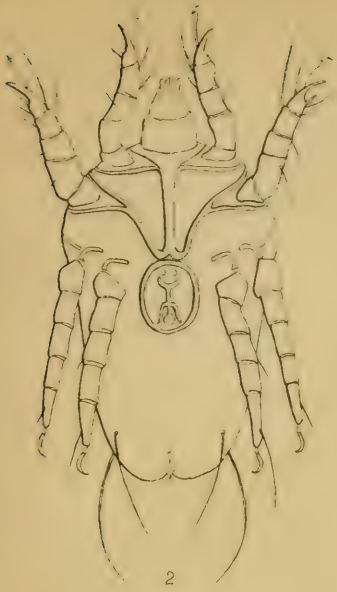
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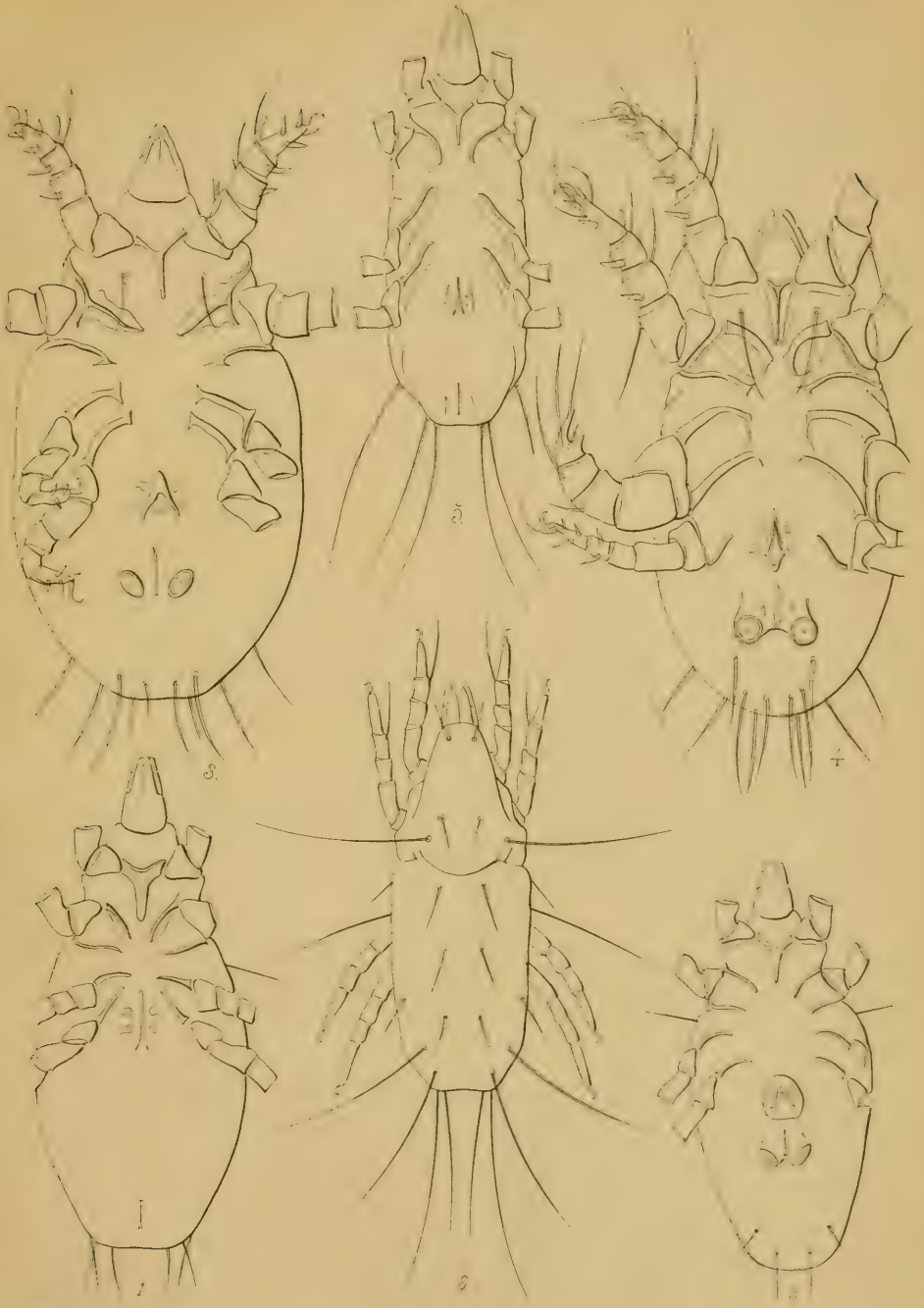




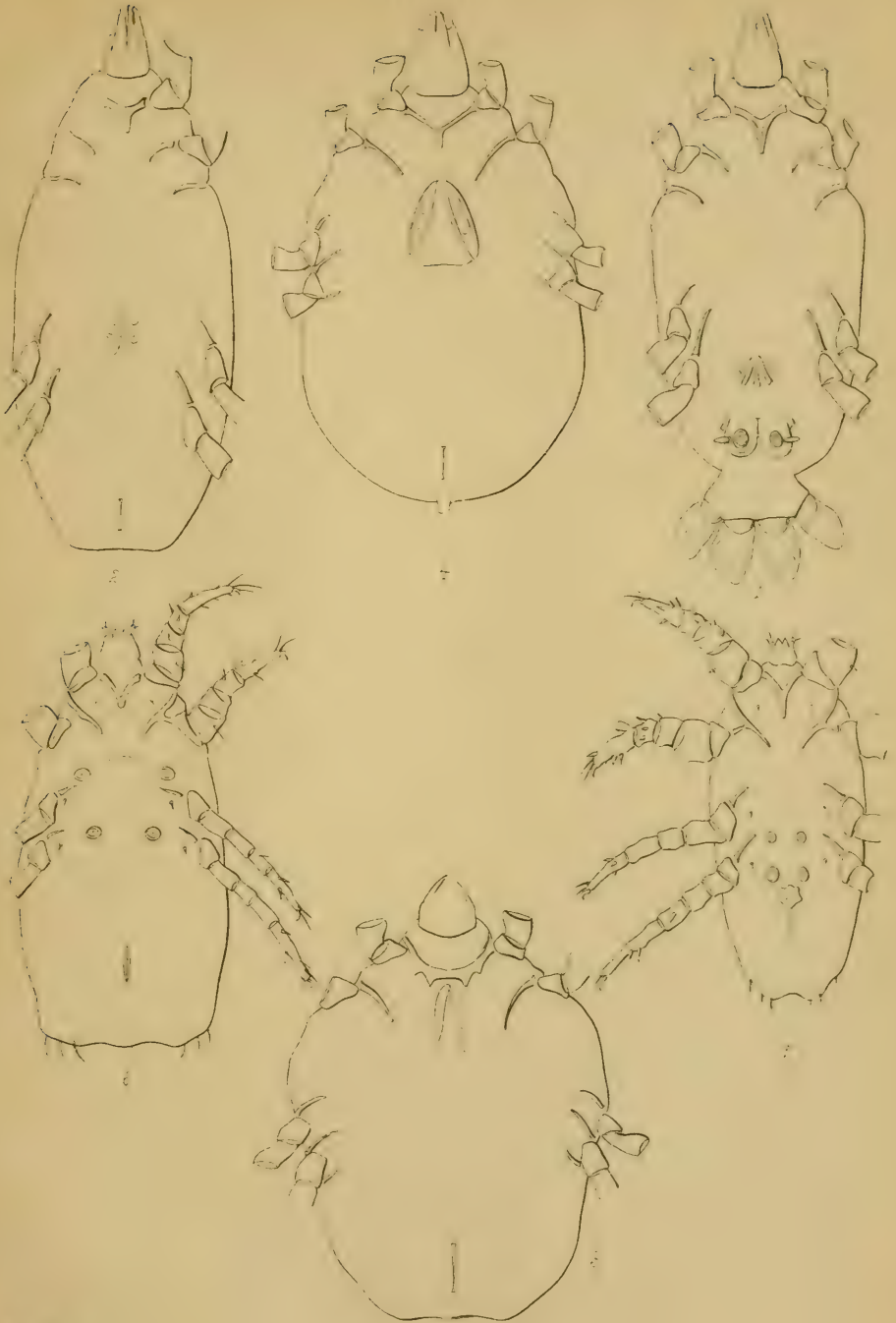
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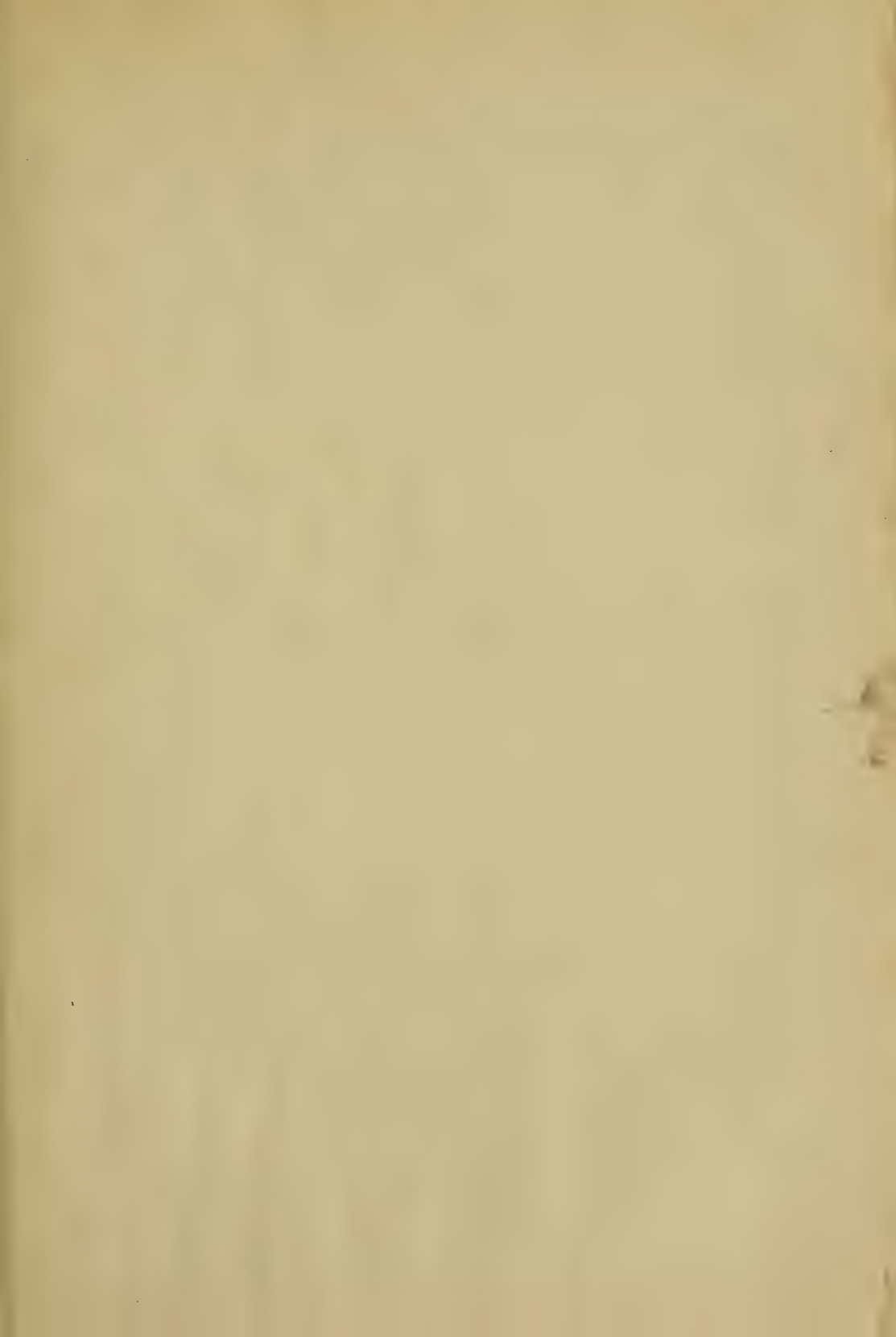






Wiley









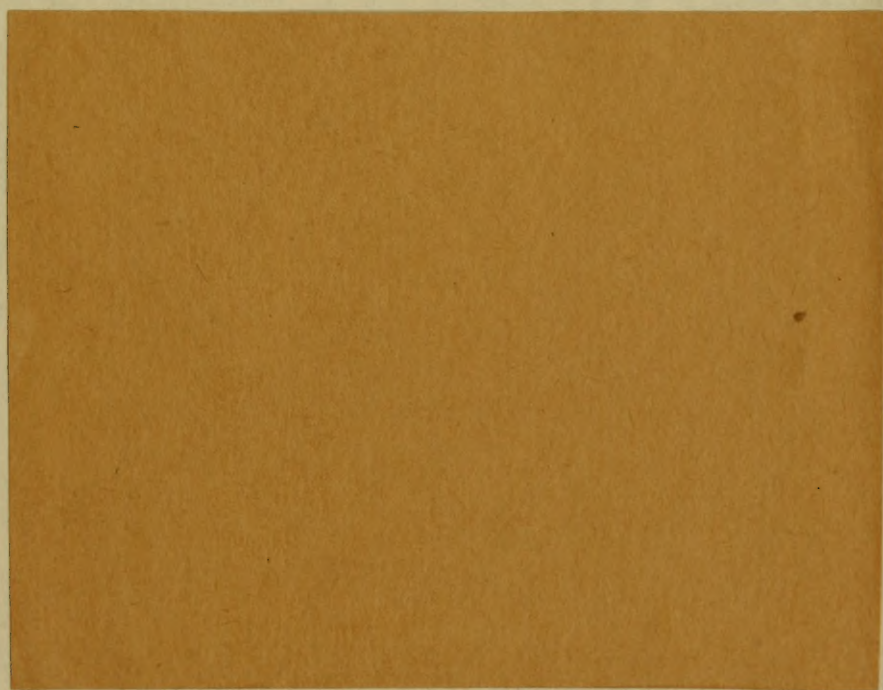




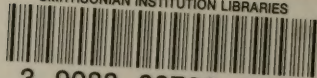


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